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ABSTRACT

This report explores educational-research projects initiated by the National Institute for Educational Research (NIER) of Japan. Selected countries in Asia and the Pacific region, as well as in other areas, were invited to undertake national studies of school curriculums. To share their experiences and to facilitate a comparative analysis of national studies conducted by the participating countries, NIER organized an International Meeting on the Study of School Curriculum. The objectives of the meeting were: (1) to cross-nationally analyze the background information in terms of the socioeconomic conditions, education, systems, and other related matters of the participating countries; (2) to compare school curriculums based on the reports of the national studies conducted in the participating countries; and (3) to complete the final report of the study. The report is divided into five sections: background information, curriculum policies, curriculum organization, curriculum implementation, and curriculum monitoring and evaluation. Some of the results indicate an ongoing commitment to curriculum-policy review and development, and a trend away from content-based curriculums and toward varying combinations of competency and content-based frameworks that ensure the acquisition of both knowledge and skills. Information on the research design, list of participants, and country reports is provided. (RJM)

An International Comparative Study of School Curriculum

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Introduction

This study is best viewed in the wider context of educational research projects initiated by the National Institute for Educational Research (NIER) of Japan. In the late 1960's, for example, NIER organized a series of workshops as part of a joint research project on A Comparative Study of Curriculum Development of the Stage of Elementary Education in Asian Countries. The outcome of these workshops was the publication in 1970 of a three volume report entitled Asian Study of Curriculum.

In the 1980s, NIER initiated two joint research projects on school curriculum with a series of workshops and meetings. The objectives of these projects were:

- 1) to study the curriculum systems of the countries in Asia and the Pacific;
- 2) to appreciate the similarities and differences among them in the context of their socio-economic and cultural backgrounds;
- 3) to identify general trends as well as the unique features of their problems in these areas; and
- 4) to exchange experiences with one another for mutual benefit.

The outcome of these projects were the publication of reports entitled Elementary/Primary Schools Curriculum in Asia and the Pacific and Some Critical Aspects of Secondary Education in the Countries of Asia and the Pacific.

Over the last decade, since the joint project was launched, many countries have revised, or are in the process of revising their curricula. NIER therefore decided to initiate a new research project on the study of curriculum at both primary and secondary education levels. Accordingly, as the first phase, NIER organized two meetings: a Regional Meeting on the Study of Curriculum in Asia and the Pacific from 10 to 21 November 1997, and an Editorial Committee Meeting on the Study of Curriculum in Asia and the Pacific from 9 to 11 March 1998. A research design including the questionnaire is given in Annex 1.

Based on the questionnaire developed by the first Regional Meeting and further finalized by the Editorial Committee Meeting mentioned above, selected countries in Asia and the Pacific region as well as in other regions were invited to undertake national studies. In order to share their experiences and make a comparative analysis of national studies conducted by the participating countries of the project, NIER organized an International Meeting on the Study of School Curriculum from 9 to 20 November 1998. This meeting was convened in collaboration with ACEID, UNESCO Principal Regional Office, Bangkok. Lists of participants of these meetings are given in Annex 2.

Objectives of the Meeting

The objectives of the meeting were as follows:

- 1) To cross-nationally analyze the background information in terms of the socio-economic conditions, educational systems and other related matters of the

participating countries;

- 2) To make comparative analysis of the school curriculum based on the reports of the national studies conducted in the participating countries; and
- 3) To complete the final report of the study.

Participation

Participants from selected countries in the Asia-Pacific as well as European and North American regions were invited to the meeting. In some cases participants attended as official country representatives and in others in their individual capacities. They were from Australia, China, Fiji, France, Germany, India, Indonesia, Japan, Lao P.D.R., Malaysia, New Zealand, Philippines, Republic of Korea, Sri Lanka, Thailand, United States of America, Uzbekistan and Vietnam. Also, a representative from the UNESCO Regional Office in Bangkok attended the meeting.

The list of participants and the NIER Secretariat appears at Annex 2.

Inauguration

The meeting was inaugurated on 9 November 1998 with an opening address by Mr. Shigeru Yoshida, Director-General of NIER. This was followed by a welcome address by Mr. Masamitsu Oki, Deputy Director General of Science and International Affairs Bureau, Ministry of Education, Science, Sports and Culture (Monbusho) of Japan on behalf of Monbusho as well as the Japanese National Commission for UNESCO. A welcome message from Dr. Rupert Maclean, Chief of ACEID, the UNESCO Principal Regional Office for Asia and the Pacific (PROAP) was also presented on behalf of the Director of PROAP.

Officers

The following participants were elected as officers of the Meeting:

- Co-Chairpersons: Mr. Ram Chandar (Fiji) - Group A
Dr. B. P. Khandelwal (India) - Group B
- Co-Rapporteurs: Mr. David Nohara (USA) - Group A
Ms. Bella O. Mariñas (Philippines) - Group B

Organisation

The meeting conducted its work in plenary sessions as well as in group sessions. After the presentation of country reports, the participants decided to continue to work on the analytical framework developed by Ms. Robyn Baker (New Zealand) and the NIER Secretariat prior to the meeting. Two working groups were constituted. Group A dealt with Sections B and D, while Group B was in charge of Sections C and E of the Questionnaire, respectively.

A drafting committee composed of officers of the meeting, Ms. Susan Mann (Australia), Mr. Colin Brown (New Zealand), Dr. Gyu Ho Hwang (Republic of Korea) and the NIER secretariat was formed for the purpose of finalizing a draft manuscript.

Final Report

The draft final report of the meeting and the joint project was adopted in the final working session on 20 November 1998. Minor modifications and final editing were completed by the NIER Secretariat. Each participating country finalized their reports and those country reports are included in Appendix 1. *[It should be noted that no attempt was made by the secretariat to edit the country reports with respect to content and styles of the country reports in order to retain the each country flavor.]*

Section A: Background Information

The purpose of this section of the questionnaire was to collect general information about the countries and their education systems.

A-1 General information

A-1.1 & A-1.2 Size of population / Age Groups

NATION	Total No. of Population	Annual population growth rate	Age Group Population			
				Male	Female	Total
Australia	18,311,000 (1996)	1.20%	0-4yrs	646,335	612,814	1,259,149
			5-9yrs	625,606	594,222	1,219,828
			10-14yrs	600,844	570,827	1,171,671
			15-19yrs	565,592	535,613	1,101,205
China	1,223,890,000 (1996)	1.042%	0-4yrs	52,815,873	45,414,285	98,230,158
			5-9yrs	63,715,873	57,876,190	121,592,063
			10-14yrs	53,117,460	49,612,698	102,730,158
			15-19yrs	49,461,904	46,790,476	96,252,380
Fiji	800,000 (1998)	1.8%	0-4yrs	37,312	34,331	71,643
			5-9yrs	58,277	55,165	113,442
			10-14yrs	43,723	41,609	85,332
			15-19yrs	38,167	36,638	74,805
France	58,500,000 (1997)	0.3%	0-4yrs			2,847,200
			5-9yrs			3,812,400
			10-14yrs			3,862,500
			15-19yrs			3,913,000
Germany (Bavaria only)	12,044,000 (1996)	0.4%	0-4yrs	338,000	320,000	658,000
			5-9yrs	356,000	337,000	693,000
			10-14yrs	327,000	312,000	639,000
			15-19yrs	321,000	307,000	628,000
India	838,600,000 (1991)	2.16%	0-4yrs	52,400,000	50,000,000	102,400,000
			5-9yrs	57,400,000	53,900,000	111,300,000
			10-14yrs	52,000,000	46,700,000	98,700,000
			15-19yrs	42,200,000	36,800,000	79,000,000
Indonesia	200,000,000 (1996-1997)	1.90%	0-4yrs	11,180,300	1,080,1700	21,982,000
			5-9yrs	10,693,200	10,356,500	21,049,700
			10-14yrs	11,918,300	11,006,600	22,924,900
			15-19yrs	11,265,500	10,622,700	21,888,200
Japan	126,310,000 (1998)	1.00%	0-4yrs	305,000	290,000	595,000
			5-9yrs	316,000	301,000	617,000
			10-14yrs	362,000	345,000	707,000
			15-19yrs	405,000	385,000	790,000
Lao P.D.R.	4,845,800 (1998)	2.5%	0-4yrs	430,000	414,000	844,000
			5-9yrs	324,000	309,000	633,000
			10-14yrs	282,000	271,000	553,000
			15-19yrs	233,000	263,000	496,000
Malaysia	21,296,049 (N/A)	2.17%	0-4yrs	1,310,178	1,229,944	2,540,122
			5-9yrs	1,287,453	1,212,013	2,499,466
			10-14yrs	1,210,789	1,148,152	2,358,941
			15-19yrs	1,089,876	1,026,190	2,116,066

NATION	Total No. of Population	Annual population growth rate	Age Group Population			
				Male	Female	Total
New Zealand	3,798,000 (1996)	1.00%	0-4yrs	144,111	135,489	279,600
			5-9yrs	147,723	140,571	288,294
			10-14yrs	135,663	128,520	264,183
			15-19yrs	133,572	129,405	262,977
Philippines	68,614,162 (1997)	2.32%	0-4yrs	4,827,268	4,534,850	9,362,118
			5-9yrs	4,566,569	4,326,861	8,893,430
			10-14yrs	4,081,676	3,958,982	8,040,658
			15-19yrs	3,726,799	3,738,652	7,465,451
Republic of Korea	45,991,000 (1997)	0.98%	0-4yrs	1,821,000	1,606,000	3,427,000
			5-9yrs	1,627,000	1,469,000	3,096,000
			10-14yrs	1,914,000	1,798,000	3,712,000
			15-19yrs	1,987,000	1,876,000	3,863,000
Sri Lanka	18,315,000 (1996)	1.40%	0-4yrs	669,137	653,746	1,322,883
			5-9yrs	747,347	724,198	1,471,545
			10-14yrs	825,556	815,635	1,641,191
			15-19yrs	739,683	738,673	1,478,356
Thailand	60,816,227 (1998)	1.16%	0-4yrs	2,308,930	2,180,351	4,489,281
			5-9yrs	2,382,514	2,257,871	4,640,385
			10-14yrs	2,415,053	2,309,054	4,724,107
			15-19yrs	2,712,749	2,615,992	5,328,741
USA (all states)	262,755,000 (1995)	4.50% (projection for after 5 years by 2000)	0-4yrs	9,350,461	8,913,635	18,264,096
			5-9yrs	9,290,556	8,836,345	18,126,901
			10-14yrs	8,787,735	8,363,399	17,151,134
			15-19yrs	9,057,977	8,593,942	17,651,919
Uzbekistan	23,655,600 (1997)	1.90%	0-4yrs	1,658,000	1,581,100	3,239,100
			5-9yrs	1,651,000	1,596,200	3,247,200
			10-14yrs	1,471,100	1,443,400	2,914,500
			15-19yrs	1,195,700	1,175,000	2,370,700
Vietnam	73,962,400 (1995)	2.17%	0-4yrs	5,071,000	4,871,800	9,942,800
			5-9yrs	4,727,600	4,491,700	9,219,300
			10-14yrs	4,515,000	4,329,600	8,844,600
			15-19yrs	3,964,600	3,778,300	7,742,900

Sri Lanka:

Data of Age Group Population are 1994 data. Due to the civil war in the North-East part of the country, no complete census has been taken after 1981. The North-East part has not been included in the 1994 data.

A-1.3.1 Major Ethnic groups in the country, as a percentage of total population.

NATION	Ethnic Group	%
Australia	UK and Ireland	14.50%
	Italy	3.10%
	New Zealand	2.70%
	Former Yugoslavia	1.70%
	Greece	1.50%
	Germany	1.40%
	Netherlands	1.30%
	Vietnam	1.10%
	China	0.80%
China	Han	91.92%
	Mongolian	0.43%
	Hui	0.76%
	Tibetan	0.41%
	Yugur	0.64%
	Miao	0.65%
	Yi	0.58%
	Zhuang	1.02%
	Bouyei	0.23%
	Korean	0.17%
	Manchu	0.87%
	Dong	0.22%
	Yao	0.19%
	Bai	0.14%
	Tujia	0.51%
	Hani	0.11%
	Kazak	0.10%
	Dai	0.09%
	Li	0.10%
Fiji	Fijian	49.00%
	Indian	45.60%
	Chinese	1.00%
	European	0.40%
	Part-European	1.00%
	All Others	3.00%
France	N/A	
Germany (Bavaria only)	Germans	90.9%
	Turks	2.2%
	Yugoslavs	1.3%
	Italians	0.7%
	Greeks	0.6%
	Bosnians	0.5%
	Others	3.8%
India	Hindus	82.0%
	Muslims	12.1%
	Christians	2.3%
	Sikhs	1.9%
	Buddhists	0.8%
	Jains	0.4%
	Other religions	0.4%
Indonesia	There are over 600 major ethnic groups within Indonesia, each with their own language.	
Japan	N/A	
Lao P.D.R.	Laoloum	68%
	Laotheung	22%
	Laosung	10%

NATION	Ethnic Group	%
Malaysia	Malay	50.62%
	Chinese	27.17%
	Indian	7.69%
	Bumiputera (Other Natives)	11.15%
	Others	3.38%
New Zealand	European	79.60%
	Maori	14.50%
	Pacific Islands	5.60%
	Asian	4.80%
Philippines	Tagalog	27.77%
	Cebuano	15.34%
	Hiligaynon (Ilonggo)	14.43%
	Waray	12.48 %
	Ilocano	10.87%
	Panpango	9.92%
	Bicolano	0.06%
	Others	9.13%
Republic of Korea	Korean	100.00%
Sri Lanka	Sinhalese	73.96%
	Sri Lanka Tamil	12.70%
	Moor	7.05%
	Indian Tamil	5.52%
	Malays	0.32%
	Burghers & Eurasians	0.26%
	Others	0.19%
Thailand	Thai	96.50%
	Chinese	2.61%
	Others	0.89%
USA	White	80.00%
	Black	12.00%
	Asian (or Pacific Islander)	0.70%
	American Indian	3.00%
	Others	4.00%
	Hispanic origin	9.00%
Uzbekistan	Uzbeks	77.20%
	Russians	5.20%
	Tajiks	4.80%
	Kazakhs	4.00%
	Tatars	1.40%
	Kirgizs	0.90%
	Ukrains	0.50%
	Turkmens	0.60%
	Jews	0.10%
	Armenians	0.20%
Vietnam	Kinh	86.83%
	Tay	1.85%
	Thai	1.62%
	Hoa	1.40%
	Khome	1.39%
	Muong	1.42%
	Nung	1.88%
	H'Mong	0.87%
	Dao	0.74%
	Cham	
	Bana	

A-1.3.2 Major Language groups in the country, as a percentage of total population.

NATION	Language Group	%
Australia	Chinese	15.50%
	Italian	11.60%
	Greek	7.40%
	Vietnamese	6.30%
	Arabic/Lebanese	5.30%
	German	4.20%
	Spanish	3.80%
	Tagalog	3.40%
	Polish	2.70%
China	Han-Tibetan	98.92%
	Altanic	1.07%
	South-Island	0.00%
	South-Asian	0.00%
	Indo-European	N/A
Fiji	Fijian	49.00%
	Indian	45.60%
	Chinese	1.00%
	European	0.40%
	Part European	1.00%
	All Others	3.00%
France	French	100%
Germany (Bavaria only)	Germanic	90.9%
	Turkish	2.2%
	Slav	1.8%
	Romance	0.7%
	Greek	0.6%
	Others	3.8%
India	Assamese	1.6%
	Bengali	8.3%
	Gujrati	4.9%
	Hindi	40.2%
	Kannada	3.9%
	Kashmiri	0.0%
	Konkani	0.2%
	Malayalm	3.6%
	Manipuri	0.2%
	Marathi	7.5%
	Nepali	0.2%
	Oriya	3.3%
	Panjabi	2.8%
	Sanskrit	0.0%
	Sindhi	0.3%
	Tamil	6.3%
	Telugu	7.9%
	Urdu	5.2%
	Others	3.7%
Indonesia	Batak	
	Minang Kabau	
	Melayu	
	Jawa	
	Sunda	
	Madura	
	Bugis	
	Makassar, etc	
Japan	Japanese	

NATION	Language Group	%
Lao P.D.R.	Tai-lao	68.10%
	Mon-khmer	22.35%
	Hmong-Yao	6.89%
	Tibet-Burmar	2.52%
	Ho	0.09%
	Viet-Muong	0.05%
Malaysia	Malay	50.62%
	Chinese	27.17%
	Tamil	7.69%
	Others	14.52%
New Zealand	English	90.90%
	Maori	4.20%
	Samoan	2.00%
	French	1.20%
	German	0.90%
	Cantonese	0.90%
	Dutch	0.80%
Philippines	Tagalog	27.90%
	Cebuano	24.30%
	Ilocano	10.00%
	Hiligaynon	9.30%
	Bicol	5.80%
	Samar-Leyte	4.00%
	Foreign Language	0.30%
	Others	18.40%
Republic of Korea	Korean	100.00%
Sri Lanka	Sinhala	73.96%
	Tamil	25.27%
	Malay	0.32%
	English	0.26%
	Others	0.19%
Thailand	Thai	99.61%
	Chinese	0.36%
	Others	0.03%
USA (all states)	English (only)	86.18%
	Spanish	7.52%
	French	0.74%
	German	0.67%
	Italian	0.57%
	Chinese	0.54%
	Tagalog	0.37%
	Polish	0.31%
	Korean	0.27%
	Vietnamese	0.22%
Uzbekistan	Uzbeks	77.20%
	Russians	5.20%
	Tajiks	4.80%
	Kazakhs	4.00%
	Tatars	1.40%
	Kirgizs	0.90%
	Ukrains	0.50%
	Turkmens	0.60%
	Jews	0.10%
	Armenians	0.20%
Vietnam	Viet.	100.00%
	Kho Me	N/A
	Cham	N/A

A-1.4 List the major religious groups in the country

NATION	Major Religious Groups	%
Australia	Christian	71.1%
	Buddhist	1.1%
	Muslim	1.1%
	Hindu	0.4%
	Jewish	0.4%
	Other	0.4%
	No religion	16.6%
	Not known	9.0%
China	Buddhism, Christianity, Islamism, and Dao	
France	Catholic, Protestant, Moslem and Jewish	
Fiji	Christians, Hindus and Muslims	
Germany (Bavaria)	Roman Catholics	67.2%
	Protestants	24.1%
	Muslims	2.0%
	Jews	0.05%
	Others	1.5%
	No religion	5.18%
India	Hindus	82.0
	Muslims	12.1
	Christians	2.3
	Sikhs	1.9
	Buddhists	0.8
	Jains	0.4
	Other Religions	0.4
Indonesia	Muslim (171,056,196), Christian (11,840,820), Catholic (7,016,380), Hinduism(3,597,255), Buddhism (2,014,233)	
Japan	Buddhism and Sintoism	
Lao P.D.R.	Buddhism and Catholics	
Malaysia	Islam, Buddhism, Hinduism and Christianity	
New Zealand	Anglican	18.42%
	Catholic	13.79%
	Presbyterian	13.36%
Philippines	Roman Catholic	82.0%
	Islam	4.6%
	Protestant	3.8%
	Aglipayan Church	2.6%
	Iglesia ni Kristo	2.3%
	Others	3.7%
Republic of Korea	Religious people are the 49.9% of total population in 1995. Among them, Buddhism (48.9%), Protestant (36.5%), Catholic (11.7%) and Others (2.9%)	
Sri Lanka	Buddhist	69.3%
	Hindu	15.5%
	Muslim	7.5%
	Christian	7.6%
	Others	0.1%
Thailand	Buddhism, the national religion is the professed faith of 92.12% of the population. Islam (5.27%), Christianity (1.34%), Hindu and Sikh (0.03%) and other (1.24%) are embraced by rest of the people.	

USA	Roman Catholic
	Baptist
	Methodist
	Pentecostal
	Lutheran
	Islam
	Latter-day Saints
	Jewish Organizations
	Presbyterian
	Eastern Orthodox Churches
	Episcopal
	Reformed Churches
	Churches of Christ
	Christian Churches and Churches of Christ
	Jehovah's Witnesses
Uzbekistan	N/A
Vietnam	Buddhist, Taoist, Roman Catholic, indigenous beliefs, Islam, Protestant, Cao Dai, Hoa Hao

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$US).

NATION	Annual public expenditure on Education (US\$)	year	Expenditure on Education as a percentage of GNP	year
Australia	14,000,000,000	1998	5.50%	1998
China	20,190,000,000	1996	2.47%	1996
Fiji	F\$152,218,300	1998	4.50%	1998
France	89 billions	1997	6.0%	1997
Germany (Bavaria)	27,000,000	1996	2.7%	1996
India	11,228,400,000	1995-96	3.96%	1995-96
Indonesia	N/A		N/A	
Japan	3,164,336,000	1995	7.90%	1995
Lao P.D.R.	30,000,000	1998	2.3%	1998
Malaysia	3,122,000	1996	5.10%	1996
New Zealand	2,773,133,000	1996-97	5.60%	1996-97
Philippines	2,106,850	1997	3.70%	1997
Republic of Korea	15,240,000,000	1997	4.8%	1996
Sri Lanka	385,200,000	1996	3.00%	1996
Thailand	6,702,416,000	1996	3.74%	1996
USA (all states)	274,065,348 ¹	1996	3.40% ²	1996
Uzbekistan	N/A		8.1%	N/A
Vietnam	N/A		2.0%	1996

USA 1: 1996-97 estimated expenditure on public elementary and secondary education)

USA 2: Primary-secondary only

A-1.6 Language

NATION	Official Language	Language of Instruction
Australia	English	English
China	Chinese	Chinese
		Ethnic Minorities' language
Fiji	English	English
France	French	French

NATION	Official Language	Language of Instruction
Germany (Bavaria only)	German	German
India	Hindi	Mother tongue
		English
Indonesia	Bahasa Indonesia	Bahasa Indonesia
Japan	Japanese	Japanese
Lao P.D.R.	Lao	Lao
Malaysia	Bahasa Malayu	Bahasa Malayu
	English Language	Chinese Language
	Chinese	Tamil Language
	Tamil	
New Zealand	English	English
	Maori	Maori
Philippines	Filipino	Filipino
	English	English
Republic of Korea	Korean	Korean
Sri Lanka	Sinhala	Sinhala
	Tamil	Tamil
Thailand	Thai	Thai
USA	No official language	English
Uzbekistan	Uzbek	Uzbek
Vietnam	Vietnamese	Vietnamese

Germany: Students from foreign countries attending compulsory schools can, as a rule and wherever possible, choose courses in their native language.

India: English as the associate link language

New Zealand: Languages of instruction are English and Maori if enrolled in Maori medium education, either bilingual (English and Maori) or immersion (Maori only). In 1997 3,200 out of 700,000 students (years 1-13) were involved in total in Maori medium education (ie bilingual and immersion).

USA: in New York State

Uzbekistan: Russian is an international contact language

A-2. The Educational system

A-2.1 Structure

Pre-school

NATION	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-compulsory
			Male	Female	Total	Male	Female	Total	
Australia	1	5	N/A	N/A	N/A	N/A	N/A	N/A	Non-C
China	3	3-5 / 4-6	14,250,300	12,413,000	26,663,300	N/A	N/A	N/A	Non-C
Fiji	1	4-5	3,748	3,668	7,416	50.50%	49.50%	70.00%	Non-C
France	4	2-5	1,076,574	1,026,125	2,102,769	N/A	N/A	2yrs: 34.7% 3yrs: 100% 4yrs: 100% 5yrs: 99.4%	Non-C
Germany (Bavaria only)	3	3-5	N/A	N/A	354,000	N/A	N/A	80-90%	Non-C
India	1 or 2	4-6	39,400,000	37,100,000	76,500,000	20.9%	17.9%	19.4%	Non-C
Indonesia	1	5-6	6,367,800	6,160,300	12,528,100	N/A	N/A	13%	Non-C
Japan	3	3-5	N/A	N/A	2,864,000	N/A	N/A	62.50%	Non-C

NATION	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-compulsory
			Male	Female	Total	Male	Female	Total	
Lao P.D.R.	3	3-5	N/A	N/A	N/A	18,961	20,009	38,970	Non-C
Malaysia	1	5	261,174	245,131	506,305	53.00%	56.50%	54.70%	Non-C
New Zealand	2-3	2-4	69,090	64,950	134,040	80.00%	79.00%	79.00%	Non-C
Philippines	2-4	2-6	N/A	N/A	N/A	N/A	N/A	N/A	Non-C
Republic of Korea	1-3	3-6	300,743	267,353	568,096	N/A	N/A	N/A	Non-C
Sri Lanka	2	3-5	N/A	N/A	N/A	N/A	N/A	N/A	Non-C
Thailand	3	3-5	N/A	N/A	2,334,247	N/A	N/A	82.16%	Non-C
USA	1-2	3-5	N/A	N/A	3,534,098	N/A	N/A	N/A	Non-C
Uzbekistan	1-2	3-7	N/A	N/A	N/A	N/A	N/A	N/A	Non-C
Vietnam	3	3-5	2,926,200	2,783,500	5,709,700	N/A	N/A	34.57%	N/A

New Zealand: Early childhood education is available to children aged 0-2, however, ISCED level 0 defines pre-primary education to include children aged 2 and over only.

Sri Lanka: The pre-school education is not administered by the government in Sri Lanka. There are a number of pre-school education centres all over the island which are administered by private organizations. But no census data available in the private education sector.

Elementary

NATION	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-compulsory
			Male	Female	Total	Male	Female	Total	
Australia	6-7	6-12	948,989	899,180	1,848,169	100.00%	100.00%	100.00%	C
China	6 or 5	6-11/7-11	71,479,900	64,670,100	136,150,000	98.97%	98.63%	98.81%	C
Fiji	8	6-13	73,765	69,016	142,781	51.60%	48.40%	95.00%	C
France	5	5/6-10/11			3,932,400				C
Germany (Bavaria only)	4	6-9	N/A	N/A	528,000	N/A	N/A	100%	C
India	5	6-11	61,200,000	57,300,000	118,500,000	73.3%	59.1%	66.4%	C
	3	11-14	33,100,000	29,700,000	62,800,000	65.0%	48.2%	57.1%	C
Indonesia	6	7-12	13,786,600	12,830,700	26,617,300	109.3%	110.1%	111.6%	C
Japan	6	6-11	N/A	N/A	7,870,000	N/A	N/A	99.98%	C
Lao P.D.R.	5	6-10	N/A	N/A	N/A	(454,033)	(366,880)	(820,913)	C
Malaysia	6	6-11	1,523,311	1,437,801	2,961,112	95.80%	96.40%	96.10%	Non-C
New Zealand	6	5-10	183,841	173,728	357,569	100.00%	100.00%	100.00%	C
Philippines	6	7-12	4,801,227	4,553,224	9,354,451	92.97%	92.41%	92.70%	C
Republic of Korea	6	6-12	1,988,197	1,795,789	3,783,986	N/A	N/A	N/A	C
Sri Lanka	5	5+9+	935,334	874,994	1,810,328	N/A	N/A	N/A	C
Thailand	6	6-11	N/A	N/A	5,449,233	N/A	N/A	99.10%	C
USA	5-6	6-12	N/A	N/A	25,428,183	N/A	N/A	aprox. 98.0%	#
Uzbekistan	4	7-10	1,283,274	1,235,442	2,518,716	100%	100%	100%	C
Vietnam	5	6-10	4,690,700	4,463,300	9,154,000	N/A	N/A	97.05%	C

India: Primary level is divided into primary and upper primary levels.

Indonesia: The data are given by the document which is presented by Indonesian participant.

Lao P.D.R.: Percentage are not given.

Sri Lanka: Due to unavailability of the relevant age group population for 1996 percentage of relevant age group attending school could not be calculated.

USA: Compulsory up to particular age (e.g. 16 years). Age varies by state.

Secondary

NATION	Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-compulsory
				Male	Female	Total	Male	Female	Total	
Australia	Lower Secondary	3-4	12-15	472,923	450,590	923,513	100.00%	100.00%	100.00%	C
	Upper Secondary	2	15-18	178,831	192,502	371,333	65.90%	77.00%	71.30%	Non-C
China	Lower Secondary	3 or 4	12-14	27,591,900	22,887,600	50,479,500	N/A	N/A	92.60%	C
	Upper Secondary	3	14-17	8,541,100	3,108,900	11,650,000	N/A	N/A	44.80%	Non-C
Fiji	Lower Secondary	2	14-15	N/A	N/A	41,935	N/A	N/A	N/A	C
	Upper Secondary	3	16-18	34,523	35,575	70,098	49.20%	50.80%	90.00%	Non-C
France	Lower Secondary	4	11-15/16	1,621,212	1,565,145	3,186,357	N/A	N/A	N/A	C
	Upper Secondary	3	16-18	1,060,967	1,137,411	2,198,378	N/A	N/A	N/A	Non-C
Germany (Bavaria only)	Lower Secondary	5-6	10-15/16	N/A	N/A	710,000	N/A	N/A	100%	C
	Upper Secondary	2-3	15/16-17/19	N/A	N/A	440,000	N/A	N/A	80-90%	Partly C
India	Lower Secondary	2	14-16	20,700,000	17,700,000	38,400,000	46.5%	31.4%	39.5%	Non-C
	Upper Secondary	2	16-18	15,600,000	13,800,000	29,400,000	26.2%	16.2%	21.5%	Non-C
Indonesia	Lower Secondary	3	13-15	6,885,600	6,613,600	13,499,200	68.0%	68.9%	69.8%	C
	Upper Secondary	3	6-16	6,804,300	6,392,300	13,196,600	N/A	N/A	37.5%	Non-C
Japan	Lower Secondary	3	12-14	N/A	N/A	4,526,000	N/A	N/A	99.98%	C
	Upper Secondary	3	15-17	2,286,000	2,228,000	4,514,000	95.90%	97.70%	96.80%	Non-C
Lao P.D.R.	Lower Secondary	3	11-13	N/A	N/A	N/A	(91,548)	(62,246)	(153,794)	Non-C
	Upper Secondary	3	14-16	N/A	N/A	N/A	(35,097)	(23,335)	(58,432)	Non-C
Malaysia	Lower Secondary	3	12-14	713,757	677,233	1,390,990	88.10%	93.30%	90.60%	Non-C
	Upper Secondary	2	15-16	447,254	423,001	870,255	62.10%	75.90%	68.80%	Non-C
New Zealand	Lower Secondary	4	11-14	113,912	108,064	221,976	100.00%	100.00%	100.00%	C
	Upper Secondary	3	15-17+	102,805	108,566	211,371	77.00%	74.00%	79.00%	C before age 16
Philippines	Secondary	4	13-16	1,964,379	1,976,208	3,940,587	61.63%	62.87%	62.25%	Non-C
Republic of Korea	Lower Secondary	3	12-15	1,128,237	1,052,046	2,180,283	N/A	N/A	N/A	C
	Upper Secondary	3	15-18	1,208,627	1,128,098	2,336,725	N/A	N/A	N/A	Non-C
Sri Lanka	Lower Secondary	6	10+15+	1,035,057	1,056,184	2,091,241	N/A	N/A	N/A	C
	Upper Secondary	2	16+17+	93,307	122,425	215,732	N/A	N/A	N/A	Non-C
Thailand	Lower Secondary	3	12-14	N/A	N/A	2,462,556	N/A	N/A	83.72%	Non-C
	Upper Secondary	3	15-17	N/A	N/A	1,634,775	N/A	N/A	51.33%	Non-C
USA	Secondary	6-7	11-18	N/A	N/A	20,282,323	N/A	N/A	N/A	
	Ungraded or in Combined	1-12	6-18	N/A	N/A	2,037,122	--	--	--	
Uzbekistan	Lower Secondary	5	11-15	1,446,478	1,425,979	2,872,457	100.00%	100.00%	100.00%	C
	Upper Secondary	2	16-18	275,809	273,633	549,442	100.00%	100.00%	100.00%	C
Vietnam	Lower Secondary	4	11-14	3,589,800	3,445,000	7,034,800	N/A	N/A	54.47%	N/A
	Upper Secondary	3	15-17	2,452,100	2,314,500	4,766,600	N/A	N/A	18.31%	N/A

Lao P.D.R.: Percentage are not given.

Sri Lanka: Due to unavailability of the relevant age group population for 1996 percentage of relevant age group attending school could not be calculated.

A-2.2 Class size and A-2.3 Teacher

Primary

NATION	Average Class Size	No. of Classroom Teachers			Teacher-Student Ratio
		Male	Female	Total	
Australia	25.9	24,373	77,894	102,267	1:18.1
China	37	3,016,948	2,718,842	5,735,790	1:16
Fiji	45	2,042	2,969	5,011	1:28.4

NATION	Average Class Size	No. of Classroom Teachers			Teacher-Student Ratio
		Male	Female	Total	
France	public: 23.4 private: 24.1		public: 77.0% private: 91.5%	public: 314,787 private: 42,795	1:18.5
Germany (Bavaria only)	24.5	20%	80%	25,800	1:18.8
India	36	1,284,765	728,760	2,013,525	1:40
	30	685,680	350,446	1,036,126	1:36
Indonesia	25	N/A	N/A	1,313,888	1:22
Japan	27.8	159,784	261,117	420,901	1:18.7
Lao P.D.R.	28.4	16,278	10,868	27,146	1:30.24
Malaysia	34	58,519	96,310	154,829	1:19
New Zealand	N/A	3,545	15,978	19,523	1:20.4
Philippines	34	N/A	N/A	N/A	1:35
Republic of Korea	35.1	57,281	81,389	138,670	1:27.3
Sri Lanka	28	10,219	53,336	63,555	1:28
Thailand	21.3	N/A	N/A	354,415	1:19
USA	24.1	N/A	N/A	1,330,894	1:15.6
Uzbekistan	23.86	18,890	100,449	119,339	1:22
Vietnam	33	73,452	224,955	298,407	1:34.25

India: Primary level is divided into primary and upper primary levels

Secondary

NATION	Level	Average Class Size	No. of Classroom Teachers			Teacher-Student Ratio
			Male	Female	Total	
Australia	Lower Secondary	25	32,234	34,676	66,910	1:12.7
	Upper Secondary	21	16,000	18,838	34,838	1:12.7
China	Lower Secondary	53	1,785,400	1,107,288	2,892,688	1:17
	Upper Secondary	51	399,030	173,032	572,062	1:13
Fiji	Lower Secondary	35	1,880	1,639	3,519	1:19.9
	Upper Secondary	30	N/A	N/A	N/A	N/A
France	Lower Secondary	public: 24.3 private: 24.6	N/A	public: 63.0% private: 69.0%	public: 184,438 private: 45,978	1:12.5
	Upper Secondary	public: 29.3 private: 25.6	N/A	public: 49.0% private: 62.0%	public: 191,534 private: 46,209	1:12.5
Germany (Bavaria only)	Lower Secondary	25	60%	40%	44,700	1:15.9
	Upper Secondary	19-24	66%	34%	28,900	1:11-20
India	Lower Secondary	28	627,636	267,809	895,445	1:30
	Upper Secondary	14	188,216	65,250	252,466	1:34
Indonesia	Lower Secondary	40	N/A	N/A	588,271	1:16
	Upper Secondary	32	N/A	N/A	254,603	1:13
Japan	Lower Secondary	33.2	161,485	108,744	270,229	1:16.6
	Upper Secondary	N/A	209,095	67,013	276,108	1:15.8
Lao P.D.R.	Lower Secondary	37.5	3,784	2,709	6,493	1:23.68
	Upper Secondary	33.4	2,903	1,595	4,498	1:13.00
Malaysia	Lower and Upper Secondary	36	40,699	61,440	102,139	1:20
New Zealand	Lower Secondary	N/A	4,858	8,107	12,965	1:19.7
	Upper Secondary	N/A	7,369	8,796	16,165	1:15
Philippines	Secondary	32	N/A	N/A	N/A	1:34
Republic of Korea	Lower Secondary	43.6	47,243	50,688	97,931	1:22.3
	Upper Secondary	49.2	77,812	26,592	104,404	1:22.4
Sri Lanka	Lower Secondary	30	31,522	58,305	89,827	1:23
	Upper Secondary	14	6,644	8,168	14,812	1:15
Thailand	Lower Secondary	41	N/A	N/A	119,022	1:21
	Upper Secondary	37	N/A	N/A		
USA	Secondary	23.6	N/A	N/A	955,052	1:18.3
	Ungraded Class		N/A	N/A	351,180	N/A

NATION	Level	Average Class Size	No. of Classroom Teachers			Teacher-Student Ratio
			Male	Female	Total	
Uzbekistan	Lower Secondary	23.56	306,860	444,589	751,449	1:11
	Upper Secondary	*	N/A	N/A	N/A	N/A
Vietnam	Lower Secondary	42	47,463	106,953	154,416	1:27.93
	Upper Secondary	47	19,735	19,663	39,398	1:25.90

Malaysia: Secondary school teachers teach both lower and upper secondary levels.

Uzbekistan: differs in each educational establishment

A-2.4 Number of Schools

NATION	Level	Government	Private	Other	Total	
Australia	Primary ¹	5,973	2,118	N/A	8,091	
	Secondary ²	1,115	424	N/A	1,539	
China	Elementary/Primary	643,077	2,906	N/A	645,983	
	Lower Secondary	64,124	1,968	N/A	66,092	
	Upper Secondary	- General	3,204	232	N/A	3,436
		- Vocational	9,481	568	N/A	10,049
		- Specialized	387 ¹ and 3,712 ²	N/A	N/A	4,099
		Complete Secondary ³	10,188	251	N/A	10,439
Fiji	Elementary/Primary	2	4	692 religious committee	698	
	Lower Secondary	12	1	139 committee	152	
	Upper Secondary	- General Vocational	36	N/A	2 religious	38
		- Teacher Training	2	N/A	2 religious	4
		- for Disabled	N/A	14	2 religious	16
France	Elementary/Primary	34,680	5,485	N/A	40,165	
	Lower Secondary	4,942	1,789	N/A	6,731	
	Upper Secondary - General	1,439	1,146	N/A	2,585	
	Upper Secondary - Vocational	1,111	655	N/A	1,766	
Germany (Bavaria only)	Elementary/Primary	2,326	76	N/A	2396	
	Lower Secondary	2,189	196	87	2472	
	Upper Secondary	- General	300	64	32	396
		- Vocational	449	464	357	1,270
		- Special (for handicapped)	205	216	7	428
		- Other (evening schools)	2	8	6	16
India	Primary	525,412	45,043	N/A	570,455	
	Upper Primary	129,352	33,453	N/A	162,805	
	Lower Secondary	31,960	33,604	N/A	65,564	
	Upper Secondary	- General (Arts includes Humanities)	8,160	10,273	N/A	23,662
		- Vocational	2,126	1,728	N/A	3,854
		- Specialized - Agriculture	558	438	N/A	996
		- Science	6,522	6,828	N/A	13,350
		- Commerce	3,725	5,572	N/A	9,297
		- Others	544	588	N/A	1,132
Indonesia	Elementary/Primary	140,383	10,212	24,227	174,822	
	Lower Secondary	9,449	11,095	9,846	30,390	
	Upper Secondary - General	2,552	5,513	3,392	11,457	
	Upper Secondary - Vocational	723	3,238	N/A	3961	

NATION	Level	Government	Private	Other	Total	
Japan	Elementary/Primary	24,205	171	0	24,376	
	Lower Secondary	10,596	661	0	11,257	
	Upper Secondary	- General	2,089	742	0	2,831
		- Vocational	1,065	38	0	1,103
		- Specialized	14	8	0	22
		- Comprehensive	19	1	0	20
		- General and Vocational	943	523	0	1,466
		- General and Comprehensive	14	0	0	14
		- General, Vocational and Comprehensive	24	2	0	26
	- Vocational and Comprehensive	13	1	0	14	
Lao P.D.R.	Elementary/Primary	8,075	82	21	8,168	
	Lower Secondary	691	21	24	736	
	Upper Secondary - General	162	N/A	4	166	
	Upper Secondary - Vocational	6	8	N/A	14	
Malaysia	Elementary/Primary	7,124	62	N/A	7,186	
	Lower + Upper Secondary - General	1,436	140	N/A	1,576	
	Lower + Upper Secondary - Religious	47	4	N/A	51	
	Lower + Upper Secondary - Technical	60	N/A	N/A	60	
	Lower + Upper Secondary - Vocational	18	N/A	N/A	18	
	Lower + Upper Secondary - Specialized	3	N/A	N/A	3	
New Zealand	Primary and Intermediate ¹	2,235	58	N/A	2,293	
	Composite ²	59	42	N/A	101	
	Secondary ³ - General	320	18	N/A	338	
	Secondary - Specialized	46	2	4	52	
Philippines	Primary	35,148	3,083	N/A	38,231	
	Secondary	3,992	2,681	N/A	6,673	
Republic of Korea	Elementary/Primary	5,645	76	(902) Branch	5,721	
	Lower Secondary	2,030	690	(43) Branch	2,720	
	Upper Secondary	- General	531	590	N/A	1,121
		- Vocational	446	325	N/A	771
		- Specialized	39	75	N/A	114
		- Air & Correspondence	42	N/A	N/A	42
Sri Lanka	Elementary/Primary	4,037	N/A	0	4,037	
	Lower Secondary	3,666	N/A	0	3,666	
	Upper Secondary	- General	2,413	N/A	0	2,413
		- Vocational	N/A	N/A	0	N/A ¹
		- Specialized	N/A	N/A	0	N/A ¹
Thailand	Elementary/Primary	33,645	1,532	18 ¹	35,195	
	Lower Secondary	7,549 ²	1,451	30 ¹	9,030	
	Upper Secondary	- General	1,768	140	12 ¹	1,942
		- Vocational	313	308	0	621
		- Specialized	0	17	0	17
		- Other	0	0	0	0
USA	Elementary/Primary	58,013	15,537	N/A	73,550	
	Secondary	19,648	2,552	N/A	22,200	
	Combined	3,079	8,006	N/A	11,085	
Uzbekistan	Primary ¹	201	N/A	N/A	201	
	Lower Secondary ²	8,677	N/A	N/A	8,677	
	Upper Secondary	- Professional College	259 ³	N/A	N/A	259
		- Academic Lyseums	334	N/A	N/A	334
		- Other: Gymnasiums	190	N/A	N/A	190
Vietnam	Primary	11,625		60 ¹	11,685	
	Lower Secondary	5,856		43 ¹	5,899	
	Upper Secondary - General	588		56 ¹	644	
	Upper Secondary - Vocational ²	253			253	

Australia¹:

Primary schools include combined primary/secondary schools (919 across the country) as well as special schools – 380.

- Australia²: No separate school numbers are provided, since most secondary schools include both lower and upper secondary years.
- China¹: 387 secondary specialized schools are run by central ministries.
- China²: 3712 secondary specialized schools are run by local authorities.
- China³: Complete secondary means lower secondary and upper secondary.
- Fiji: Combined lower and upper secondary
- New Zealand¹: Primary and Intermediate schools cater for students from year 1 to year 8.
- New Zealand²: Composite schools cater for students from year 1 (new entrant) to 13 (senior secondary)
- New Zealand³: Secondary includes schools that provide for students from year 7 to 13; and for year 9-13 (the latter being the most common).
- Republic of Korea: Primary and Intermediate schools cater for students from year 1 to year 8.
- Sri Lanka: No census data available in the private schools, vocational or specialized schools in Sri Lanka.
- Thailand¹: Demonstration schools.
- Thailand²: 22 schools include School for Railway, Armed Force Academies Preparatory School, Air Technical Training School, Military Technical Training School, Survey School – Royal Thai Survey Department, College of Dramatic Arts and Fine Arts and College of Physical Education.
- Thailand³: There are around seven thousand secondary school level being in the same elementary school.
- Uzbekistan¹: Separate four grades Primary schools.
- Uzbekistan²: These are nine-years General Secondary Schools from 1st-9th grades including four years primary education.
- Uzbekistan³: By the year 2003 it is planned to increase number of professional colleges till 1400.
- Vietnam¹: Semi-public, and Community sponsored.
- Vietnam²: Secondary vocational education and Secondary technical education.

A-2.5 Specific School Information:

NATION		Elementary/ Primary	Lower Secondary	Upper Secondary
Australia	No. of school days/year for students	196-201	196-201	196-201
	Division of school year	3 or 4	3 or 4	3 or 4
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	25	20.8	
	Time duration/teaching period (min.)	See Below		
China	No. of school days/year for students	180-200	180-200	180-200
	Division of school year	2	2	2
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	9-12	9-11	8-11
	Time duration/teaching period (min.)	40	45	45
Fiji	No. of school days/year for students	205	205	205
	Division of school year	3	3	3
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	35	35	35
	Time duration/teaching period (min.)	30-40	40-45	40-45

NATION		Elementary/ Primary	Lower Secondary	Upper Secondary
France	No. of school days/year for students	180	180	180
	Division of school year	4	4	4
	No. of instruction days/week	5	5 or 6	5 or 6
	Teachers' average no. of class contact hours/week	26	17.9	17.9
	Time duration/teaching period (min.)	55	55	55
Germany (Bavaria only)	No. of school days/year for students	190	190	190
	Division of school year	2	2	2
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	28	27/24/23	23
	Time duration/teaching period (min.)	45	45	45
India	No. of school days/year for students	180-250	180-250	180-250
	Division of school year	4	4	4
	No. of instruction days/week	5-6	5-6	5-6
	Teachers' average no. of class contact hours/week	30-36	30-36	30-36
	Time duration/teaching period (min.)	30	35-40	35-40
Indonesia	No. of school days/year for students	250	250	250
	Division of school year	4	4	4
	No. of instruction days/week	6	6	6
	Teachers' average no. of class contact hours/week	30	18	18
	Time duration/teaching period (min.)	1-3=30 4-4=40	45	45
Japan	No. of school days/year for students	35weeks	35weeks	35weeks
	Division of school year	3	3	3
	No. of instruction days/week	5 or 6	5 or 6	5 or 6
	Teachers' average no. of class contact hours/week	18.2	14.4	13.8
	Time duration/teaching period (min.)	45	50	50
Lao P.D.R.	No. of school days/year for students	190	190	190
	Division of school year	2	2	2
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	28	20	18
	Time duration/teaching period (min.)	50	50	50
Malaysia	No. of school days/year for students	204	204	204
	Division of school year	2	2	2
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	19.75	20.15	20.15
	Time duration/teaching period (min.)	30	40	40
New Zealand	No. of school days/year for students	197	190	190
	Division of school year	4	4	4
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	25	22.25 - 25	22.25
	Time duration/teaching period (min.)	60	50	50
Philippines	No. of school days/year for students	200 - 220	200 - 220	
	Division of school year	4	4	
	No. of instruction days/week	5	5	
	Teachers' average no. of class contact hours/week	30	30	
	Time duration/teaching period (min.)	30/40/60	40/60	
Republic of Korea	No. of school days/year for students	220	220	220
	Division of school year	2	2	2
	No. of instruction days/week	6	6	6
	Teachers' average no. of class contact hours/week	22	19	18
	Time duration/teaching period (min.)	40	45	50

NATION		Elementary/ Primary	Lower Secondary	Upper Secondary
Sri Lanka	No. of school days/year for students	210	210	210
	Division of school year	term	term	term
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	20	26h and 40min.	26h and 40min.
	Time duration/teaching period (min.)	30	40	40
Thailand	No. of school days/year for students	200	200	200
	Division of school year	2	2	2
	No. of instruction days/week	5	5	5
	Teachers' average no. of class contact hours/week	21	18	18
	Time duration/teaching period (min.)	20	50	50
USA (New York State)	No. of school days/year for students	180		
	Division of school year	Varies by SCL		2, 4
	No. of instruction days/week	5		
	Teachers' average no. of class contact hours/week	Should not exceed equivalent of 25 class periods		
	Time duration/teaching period (min.)	Periods not usually used		Varies by school, usually at least 36
Uzbekistan	No. of school days/year for students	198-204	204	204
	Division of school year	4	4	2 in Colleges, 4 in Lyceums
	No. of instruction days/week	6	6	6
	Teachers' average no. of class contact hours/week	14	16	16
	Time duration/teaching period (min.)	40-45	40-45	80-90 in Colleges, 40-45 in Lyceums
Vietnam	No. of school days/year for students	165	198	198
	Division of school year	2	2	2
	No. of instruction days/week	5	6	6
	Teachers' average no. of class contact hours/week	24	18	16
	Time duration/teaching period (min.)	40	45	45

Australia: The duration of teaching periods varies widely in Australia. At one extreme, some secondary schools still operate teaching periods of approximately 40 minutes, and some primary schools operate short sessions informally within longer teaching periods. Equally, some schools, especially at senior levels, operate teaching periods of 90 minutes or even longer. There has been a trend in recent years for secondary schools to move to longer teaching periods (i.e. away from the traditional 40-minute period).

Section B: Curriculum Policies

B-1. BACKGROUND

During the last decade various efforts have been made in each country to remodel their education systems to bring them into line with social, economic, political and cultural change. These educational changes are reflected in national educational policies and the curricula framework.

B-1.1 Social/economic/political/cultural contexts of curriculum policies

Curriculum policies in participating countries represent a wide variety of social, economic, political, and cultural contexts. While the degree of emphasis varies in each country, the following imperatives driving curriculum policy are evident:

- ▶ need to build social cohesion and national identity in global society and to preserve cultural heritage, e.g. Australia, Germany
- ▶ need to impart cultural, ethical, and moral values, e.g. Indonesia, Fiji, Lao P.D.R., Malaysia
- ▶ concern for future economic well-being, international competitiveness, e.g. Australia, New Zealand, United States, Uzbekistan
- ▶ concern for equal opportunity and equity, (urban/rural, gender, income, disabilities), e.g. Sri Lanka; United States, India
- ▶ desire to raise achievement for all students, e.g. New Zealand, United States.

B-1.2 Educational goals/aims for the compulsory education sector

All countries have stated educational goals/aims for their compulsory education sector. Those common to most countries include development of basic foundation knowledge (literacy, numeracy and life skills); of the child's intellectual, emotional, spiritual and physical potential, and of critical thinking and problem-solving skills. Others mentioned are knowledge of the world of work; respect for human dignity and human rights; understanding of ecology and appreciation of the environment; international understanding and development of a one-world view; promotion of civic and moral values and the ability to adapt to change.

One major difference between countries is the existence of religious goals and the extent to which they are included in the curriculum. For example, the Indonesian and Malaysian curricula include religious goals, while other countries, including Australia, France, and New Zealand, are secular in their public education systems.

B-1.3 Regulations governing curriculum policies

In all countries, schools are subject to some degree of government regulatory control of the curriculum, either at a national or state level.

In countries with a federal structure where the states have responsibility for education, there is no mandatory national curriculum, e.g. Australia, Germany, USA. Within these countries, regulations at the state level may vary.

Countries with a national education structure exhibit a range of national regulations from the complete control of all aspects of student outcomes and curriculum implementation, including time allocations, subjects, and assessments, e.g. China, Lao P.D.R., Sri Lanka, and Vietnam to curriculum and administrative guidelines with flexibility for implementation at the school level, e.g. India and New Zealand.

Countries with a high degree of curriculum regulation also tend to highly regulate textbook development and provision.

B-2. Curriculum Change

B-2.1 Curriculum changes over the past five to ten years

There have been a variety of changes in the school curriculum of participating countries over the past five to ten years. The following table provides an overview.

Nation	Subject Change	National Curriculum Standards	Balance between compulsory and electives	School structures	Assessment	Monitoring
Australia	Asian languages, technology, civics	Nationally-developed curriculum frameworks	8 compulsory subject areas defined	Vocational education has changed Yr. 11 and 12 school structures	Certificate assessments includes internal and external assessments	Introduction of literacy and numeracy testing
China	Computer technology, integration of social studies	Curriculum Plan for 9-year compulsory education	Reduction of some compulsory and addition of more electives and activities	No great change	Emphasis on testing abilities	Three levels of management-central, local and school
Fiji	Computer technology, vernacular languages became examinable; Conversational and cross-cultural foreign language in primary education	Primary framework revised for grades 1-8. Secondary undergoing revision	Class 8 exam changed to include environment and moral values studies	No change	Internal assessments in Form 7 subjects	Standardized test in classes 3 & 4 in literacy and numeracy
France	NTIC	National Curriculum Standards and National Curriculum Council	Electives in classes 8 and 9	unified lower secondary school (6-9) two types of upper secondary schools : general and technological (10-12) vocational	external examinations in classes 9 and 12 Internal assessments	literacy and numeracy testing at the beginning of classes 3 and 6. French, mathematics, foreign language, history, geography testing at the beginning of class 10
Germany (Bavaria)	Foreign language and IT in primary and secondary education Integrated social and science studies in one type of secondary school	Set curricula for all schools	Reduction of electives in upper secondary (focus on core curriculum)	No change	Final examinations for all types of school	No change
India	National core curriculum in 8 subject areas Computer technology and communicative foreign language learning at secondary level	National core curriculum up to secondary level Secondary equal to O level and Senior Secondary equal to A level	Emphasis on more electives at senior secondary level in new subjects and vocational education	Development of parallel Structure for vocational courses, at Secondary and Senior Secondary level	Continuous and comprehensive evaluation with external assessment at grades 10 and 12	Attempts for national standards test at secondary level since 1990s
Indonesia	Civic education Science technology Computer science Local curriculum	Minimum national standards	10 compulsory subjects	No change	National assessments in 7 subjects	No change

Nation	Subject Change	National Curriculum Standards	Balance between compulsory and electives	School structures	Assessment	Monitoring
Japan	Integration of social studies and science in grades 1 & 2 "Life Environmental Studies" Social Studies divided: "Geography and History" & "Civics" in upper secondary	Course of Study	Increased number of elective subjects and reduction in compulsory subjects	Introducing a comprehensive course	National assessments	Introduction of school evaluation by local educational authorities Local educational authorities evaluation by Ministry of Education
Lao P.D.R.	Primary: "The world around us" (integrated class) Lower Secondary: Biology, Physics and Chemistry integrated into natural science. Upper Secondary Politics replaced by Civics. All levels: HIV/AIDS and Drug abuse prevention	Move from teacher centered to student centered	No change	No change	Various assessment instruments were developed to be used by teachers	Pedagogical adviser and supervisor were created
Malaysia	Science, living skills, and local studies (primary); Living skills- invention, information technology (secondary)	Move from student's profile to national standards	More electives at upper secondary level	5-7 years for primary level	Growing emphasis on school-based assessment External exams for certain levels	Empowerment to state/district/school authority to monitor curriculum implementation
New Zealand	Technology, essential skills identified and integrated into the curriculum	Development of curriculum statements based on the NZ Curriculum Framework And of a National Qualifications Framework	7 compulsory subject areas defined	Flexibility in school structures. Move to self-managing schools. Establishment of Kura Kaupapa Maori (Maori immersion schooling)	Move to school-based assessments and inclusion of internal assessment for qualifications	NEMP Project (benchmarks, to be examined every four years) National exams Years 11 & 13
Philippines	Introduction of values education as a separate subject as well as integrated in other subject areas; Technology in Science and vocational education Focus on critical thinking, problem solving, practical work	Identified desired learning competencies in all areas	No system of electives	No change	Year-of-level national examinations (NEAT/NSAT) School-based	Move towards decentralization

Nation	Subject Change	National Curriculum Standards	Balance between compulsory and electives	School structures	Assessment	Monitoring
Republic of Korea	English introduced at elementary level (from year 3) Optional courses for elementary and secondary schools Technology and home economics become compulsory for both boys and girls at secondary level Computer science and environmental studies introduced as optional courses at secondary level	Revision of national curriculum in 1992, giving more flexibility to local and school level	More elective courses at upper secondary level	No Change	More emphasis on essay writing at elementary and secondary levels	Introduction of school evaluation by local education authorities Local educational authority evaluation by Ministry of Education
Sri Lanka	College level: business statistics and math for non-math students introduced new topics in pure mathematics and applied mathematics, geography, history, political science, logic and st. methods, greek civilization. Primary level: environment studies Integration, activity-based beginning science	Move from teacher-oriented to competency-based	No Change	Introduced national schools (253) (administration by central ministry)	Introduced continuous assessments	No Change
Thailand	Repackaging subjects in physical education and hygiene with human and self development	Set national standards in all learning areas for basic education outcomes Set benchmarks for every 3 year level	Balancing between compulsory and elective subjects in terms of time constraints Balance in bipolar development standards (e.g. self vs. society)	School and community design their school structure and curriculum based on standards and readiness of school	School-based assessment for every year in primary and every quarter in secondary National review for primary and secondary by alternate year	School has self-audit through school charter and school quality control School quality assured by accountability assessment of administrative authorities and other agencies
USA	No change in National level	Move from syllabus approach to curriculum framework	No change in National level	No change in National level	No change in National level	No change in National level
Uzbekistan	Technology; values; business; environment studies	National curriculum standards from grade 1-9	Emphasis on compulsory subjects	Introduced national schools	Continuous and comprehensive assessment	Ministry of Education
Vietnam	Integrated natural and social sciences in grades 1-3	New primary curriculum National curriculum standards from grade 1-9	9 compulsory subjects in primary school some elective subjects in primary and secondary	No change	No change	No change

All countries report significant curriculum changes over the last 5 to 10 years. The most commonly introduced new subjects include information technology, civics, and additional foreign languages. Other new subjects are technology, e.g. Australia and New Zealand, and integrated studies, e.g. Life Environmental Studies in Japan and The World Around Us in Lao P.D.R.

The development and revision of national or state curriculum frameworks and standards/competencies occurred in Australia, Germany (Bavaria), Philippines, the United States (New York State), and Vietnam.

One common trend was the attempt to redefine the balance between compulsory and elective subjects. Interestingly, countries with a broad range of elective subjects were attempting to refocus on a common core, e.g. Australia and Germany (Bavaria). Other countries were expanding their electives to provide more subject choice, e.g. Fiji, Japan and Vietnam.

The analysis reveals an increasing emphasis on school-based continuous assessment in Australia, Fiji, India, Malaysia, New Zealand, Philippines and Sri Lanka.

B-2.2 Predicted changes in national curriculum for the next five to ten years

As countries look toward the future, there is a general readiness and acceptance of the need to revise and review curriculum. Many of the expected changes over the next five to ten years continue current reform efforts. Some countries, e.g. Japan and Sri Lanka have an approved government direction for future curriculum, while others are only in the position to predict trends.

The integration of information technology across the curriculum is regarded as a major priority by many countries. Other priority areas for the next five to ten years include maintaining basic skills, e.g. literacy and numeracy; values education in a pluralistic society; vocational education and enterprise studies; encouragement of independent, self-directed learning; development and refinement of school-based assessment; and education for participation in a global society.

Countries expect to continue to focus on the balance between compulsory and elective subjects. Those with a current proliferation of subjects indicate a need to strengthen the core, e.g. Australia, Germany (Bavaria), New Zealand, and the United States (New York State). Those with a large number of mandated subjects expect to provide more flexibility by introducing more electives, e.g. China, Japan, Korea, the Philippines, Sri Lanka and Vietnam.

In addition to curricular and pedagogical changes, some countries are considering changes in school structures. For example, the Philippines are planning to increase the number of years of compulsory schooling by one year, Vietnam is increasing the number of hours in the school day, and Japan is reducing the number of school days by eliminating instruction on Saturdays.

B-3. Curriculum Development Processes

B.3.1 Degree of centralisation of curriculum development

The role of curriculum development is considered to be of such importance for national and state policies that no government in the participating countries has abrogated its overall

responsibility for this task.

In most countries curriculum development is generally centralized, but at the implementation level there is a varying degree of autonomy of local authorities, schools and teachers.

China, Fiji, France, Germany (Bavaria), Indonesia, Japan, Korea, Lao P.D.R., Malaysia, the Philippines, Sri Lanka, Thailand and Uzbekistan all report highly centralized curriculum development processes.

In some countries there is a varying possibility for local authorities, schools and teachers to influence curriculum development at the implementation level. For example, Indonesia (20%), Lao P.D.R.(10%) and Vietnam (15%) allow local content input. In other countries, e.g. Australia and New Zealand, teachers develop their own content within centrally developed curriculum frameworks.

B-3.2 Initiation of curriculum development

Country	Agency initiating curriculum development	Agencies consulted
Australia	Education Departments (state and federal) Curriculum Corporation	Schools, teachers, parents, industry, business, other government departments, teacher unions, universities, school communities
China	State Education Ministry	Professional editors, colleges and universities, teachers, students, parents, other professions
Fiji	Curriculum Development Unit, Ministry of Education	Local government, teacher unions, research institutions, employers, industries, non-governmental agencies, teachers
France	Ministry of Education; National Curriculum Council	National educational organizations, teachers
Germany (Bavaria)	Ministry of Education	State Advisory School Council, State Institute for School Education (can propose revision and develop curriculum)
India	National Council for Education Research and Training, State Councils for Education, Research and Training and State boards of Secondary Education	School boards, official associations of teachers and individual teachers, (no involvement of parents and students)
Indonesia	Ministry of Education	Senior officials from relevant institutions, subject specialists, universities and institutes, senior subject teachers, headmasters, representatives from the National Education Advisory Board, private companies
Japan	Ministry of Education	Central Council for Education (broad aims), Curriculum Council (discusses curriculum guidelines), Committee for making the course of study
Lao P.D.R.	National Research Institute for Educational Science	Some departments within MOE (e.g. Department of General Education, Department of Teacher Training) representatives of trade union, women's union and youth union, Party Central Committee for Ideological Education, Teacher Development Centre, National University
Malaysia	Curriculum Development Center	Academics, teacher unions, parents, professional bodies, and non-governmental agencies
New Zealand	Ministry of Education	Government departments, teachers, sector groups and organizations, teachers unions, parents, community, international and national experts, business and industry groups

Country	Agency initiating curriculum development	Agencies consulted
Philippines	Bureaus of Elementary and Secondary Education	Professional stakeholders, parents, teachers, students
Republic of Korea	Ministry of Education (sometimes by special commission)	Research institutes (e.g. KEDI and KICE involved for developing draft version, various groups (e.g. teachers, parents, students, industry, academic associations) provide their views on the proposal
Sri Lanka	National Institute of Education	Foreign consultants (ADB, World Bank) and local consultants, University staff members, Ministry of Education and Higher Education, Provincial Education Authorities, master teachers, experienced senior teachers
Thailand	Department of Curriculum and Instruction Development; Ministry of Education	Department of Curriculum Development, local agencies teachers, community, welfare agencies
USA (New York)	State Education Department (Board of Regents)	All stakeholders
Uzbekistan	People's Education Ministry Ministry of Higher Education	Research institutions
Vietnam	National Institute for Educational Sciences	National Education Council, international and national experts, teachers, parents

Involvement of a wide range of agencies and stakeholders is regarded as an important factor to assist Government or its nominee to develop an effective curriculum. Although final decisions are generally made at the government level, stakeholders are consulted before and during the development process. This consultation takes a variety of forms including the use of councils of experts to directly develop policy, e.g. Japan, Bavaria; systematic input from teachers on policy development, trialing and reviewing curriculum e.g. France, Australia, New Zealand; Philippines and advice from parents and communities, e.g. Australia, Bavaria, Indonesia, New Zealand and Vietnam. Other stakeholders involved in curriculum development include foreign consultants, research institutes, university staff and welfare agencies.

The involvement of representatives from industry and business in consultation on curriculum issues is a distinctive feature in a range of countries including Australia, Fiji, Germany, Indonesia, New Zealand Philippines and the United States, particularly in relation to vocational education.

B-3.3 Accommodation of group opinions in curriculum decision-making

The following table describes the process of incorporating stakeholder opinion in curriculum decision making.

Country	Processes
Australia	Consultation committees with representation of stakeholder groups; media (press); school level consultation with parents, community; survey of schools to review policy, school pilots
China	Interviews and investigations on policy using academics
Fiji	Consultation committees (including teacher unions, principals and head teachers, university and research representatives); pilot school committees; no parent representation; survey all schools
France	Consultation of teachers on projects become important part of process
Germany (Bavaria)	State advisory councils (include teachers, parents, students, industry, commerce, church) make recommendations to minister, responsible to parliament
India	All segments of society can express their opinions

Country	Processes
Indonesia	Committees which include principals, parents, teachers, students, industry, and stakeholders
Japan	One year to submit final report, so council publishes draft papers, collects opinions, can conduct hearings of parents and specialists
Korea	Uses groups, but when groups don't and can't agree, decision made by the government
Lao P.D.R.	National Institute for Educational Sciences develops draft and questionnaire, holds meetings of stakeholders, adopts final curriculum document. Ministerial commission makes final decision
Malaysia	Participation in curriculum design; resolutions and suggestions from seminars, conferences, and workshops; memoranda
New Zealand	Ministry of Education develops policy specifications for writing curriculum, tenders/contract for writing curriculum. Contractors must consult various groups, and provides draft to Ministry, Ministry seeks input, develops final draft, Minister approves and signs
Philippines	Conferences, seminars, and workshops
Sri Lanka	Interviews with university personnel and other professionals, teachers, parents, students; Pilot process to get public views; public media programs (for education and dissemination)
Thailand	Participation in national curriculum framework development through hearings and seminars; New school board of stakeholders will approve school charters and school curriculum
USA (New York)	Public comment legally required in some cases; Recent example: curriculum development committees (of subject specialists, SED staff, university researchers, teachers, business); develop draft document, public forums and dissemination of draft; final document
Uzbekistan	Experiment and trial policies in good schools; involves students and researchers
Vietnam	Establish curriculum development committee, prepare draft, organize workshops to review draft, trial in some provinces, establish science council, minister approves

Whether at the formulation or review stage, education stakeholders are consulted on curriculum development in all participating countries. In New York State and Bavaria, consultation is required by law where the change is significant.

The purpose of consultation varies across countries, from information to the public, to seeking genuine feedback and comment. New Zealand has established a legal definition of public consultation to ensure it is seriously considered by policy makers.

The most common methods of consultation include meetings of formal representative committees, either formed for the ongoing purpose of consultation or brought together to review the specific initiative. In addition, seminars, workshops, public forums and other forms of structured discussion are used. Questionnaires to schools, research and school piloting of draft proposals are also used. In some countries, for example, Australia, Japan and the United States, the Internet is starting to be used to publish draft consultation documents

The length of time for consultation varies depending on the country and the extent of the change. Time and money appear to be constraints on thorough consultation.

B-3.4 Curriculum approaches to promote unity and cultural diversity

The following table details how each country promote unity and cultural diversity through its curriculum.

	Curriculum focus	Languages	Teaching materials	Community groups
Australia	Civics and social studies	Languages of migrant groups	Civics, social studies and language materials reflecting multi cultural community	Variety of ethnic groups and Aboriginal and Torres Strait Islanders included
China	State-arranged and a few local-arranged curricula	Chinese and ethnic languages as instructional media	Bilingual teaching materials and local editing of materials	Inclusion of community groups in developing policies
Fiji	English and other languages	Teaching various ethnic languages	Locally produced material and cassette tapes	
France	Unity promoted by national curriculum standards	Regional languages as options with exam subjects		Participation of teachers in formulating curriculum
Germany (Bavaria)	Policy applies to all schools and unifies entitlement	Teach various migrant languages to preserve identity Cross cultural and conversational language instruction	Illustrate how diversity enriches culture and life	
India	Local curricula appropriate to needs	Hindi official language English as link language (second foreign language) Introduced 3 language formula (learning of one more regional, foreign, or ancient language)	Provided from the NCERT and SCERT	
Indonesia	National development needs Science, technology, arts, environment, civic ed., Religious ed., reading, writing, and mathematics	Indonesian languages Encourage students to learn other languages (i.e. English, French, German, etc.)	Pancasila (five principles) education Introduce science and technology, geography, national and world history, handicrafts and arts, drawing, local content curriculum	
Japan	Set national standards Introduce and reinforce moral and civic education Emphasis on international understanding in moral education	Japanese official language Also encourage students to learn other languages (French, German, Korean)	Local studies	Local co-curricular activities
Lao P.D.R.	Topics in history, civics, and Lao language	Teaching Lao to non-Lao speaking children	Concentrated 'language encounter' materials for local studies	Special schools for ethnic minorities in each province

	Curriculum focus	Languages	Teaching materials	Community groups
Malaysia	Single medium of instruction Core subjects for all	National language as medium of instruction Ethnic language for school instruction at primary level		National types Tamil and Chinese primary schools
New Zealand	Social Studies curriculum Curriculum statements developed in Te Reo Maori	Range of community and international language curricula developed	Materials reflect the multicultural community. Resource support for teaching languages as an option	Maori language schools; Involvement of Pacific islands and other ethnic communities
Philippines	Indigenization/localization of the curriculum	Local languages	Local content and context	Indigenous cultural communities
Republic of Korea	National curriculum provides common features, but diversity through modification is also emphasized Moral education and history are regarded as the foundation for unity		Separate books for provincial studies	
Sri Lanka	One common curriculum and common examination Values and morals education integrated into religious education	Medium of instruction: Sinhala and Tamil Sinhala as 1 st language and Tamil as 2 nd , or Tamil as 1 st language and Sinhala as 2 nd English compulsory, other foreign languages optional	In both Sinhala and Tamil	Involvement of all community groups
Thailand	New proposed curriculum design: national standards for basic education outcomes and benchmarks every three years for local schools to develop curriculum	Unified national language, Local language (dialect) taught to study local wisdom, foreign language as optional subject	Teacher decision	Involved in approval of school charter and curriculum
USA	Specific topics in citizenship State and national history and culture emphasized in social studies and English Diversity integrated in all subjects	English language of instruction; but bilingual and second language instruction provided		
Uzbekistan		Russian language for interethnic dialogue; Instruction in ethnic language groups	Materials on local heritage, history, and culture	
Vietnam	Moral and civic education, mathematics Nature and science, Vietnamese language	Bilingual program for ethnic areas	Integrate subjects	

There is a general consensus that cultural diversity and national unity are promoted through the curriculum with varying emphasis, depending on the countries concerned.

Countries with cultural homogeneity, e.g. Korea and Japan, emphasize national unity, particularly through a centrally developed common curriculum and examination system. Cultural understanding in these countries is supported through tolerance and moral education programs and developing international understanding. Encouraging cultural diversity is interpreted as emphasizing local or provincial differences.

In those countries with diverse ethnic groups such as Australia, India, Indonesia, Malaysia, New Zealand and Sri Lanka, stress is equally placed on the development of cultural diversity and national unity. This aim is generally supported through:

- ▶ curriculum or topic offerings. These commonly include civics, social studies, history, and moral education courses, e.g. Australia, Lao P.D.R., New Zealand Philippines;
- ▶ use of ethnic languages as a medium for instruction, for instance, Fiji, Indonesia (primary school), Malaysia, New Zealand, Sri Lanka and Uzbekistan.
- ▶ bilingual programs and migrant languages, e.g. Australia and Germany.
- ▶ foreign language instruction including cultural studies.

In some cases where cultural diversity is supported, local community groups are involved in curriculum development, e.g. Maori groups in New Zealand, and Aboriginal and Torres Strait Islanders in Australia.

B-3.5 Provision for children with special needs

In the development of curriculum policies, all countries make varying provisions for students with special needs through modification of the curriculum, special schools, support services and improving access to mainstream education.

Most countries provide for students with physical disabilities through special schools. In nearly all countries, efforts are made to integrate these students into mainstream education, where possible.

While most countries modify their curriculum and provide additional support for low achievers, only a few countries have specific curriculum policies for high achievers/gifted students. These include Australia, China, Germany, Indonesia, Philippines, United States and Vietnam.

Except for Australia, China, Japan, Lao P.D.R., New Zealand and the United States (New York State), there is little consideration of the issue of gender in the curriculum. Where it is addressed, the trend is to increase girls' participation in mainstream education.

In many countries, ethnicity and low socio-economic background are addressed through additional support services with the aim of improving access and participation to mainstream education.

Section C: Curriculum Organization

Every country needs to make decisions regarding the overall approach to curriculum design as well as to the subject areas.

C-1. Basic approaches to curriculum design

Two main approaches to curriculum design reported by the participating countries are the content or topic-based approach and the outcome-based approach.

The content or topic based approach lists the topics or themes of the subject area or discipline. The listing is generally broad and includes the aims and objectives for the subject area.

The outcome-based approach to curriculum design defines the outcomes, usually as abilities or skills, that students are expected to achieve by the end of the period of study or period of schooling for the specific subject.

The general trend is to a combined use of the content-based and outcome-based approaches to curriculum design. For example, China, France, Germany, Japan, Korea, Lao P.D.R., Malaysia, Philippines and the USA report that they have designed their curriculum using varying combinations of the content and outcome-based approaches. Australia, New Zealand and Thailand predominantly use the outcome-based approach, while Fiji, Indonesia and Vietnam predominantly use the content-based approach. India and Sri Lanka are moving from a content to an outcome-based approach, while Uzbekistan reports a move from a purely outcome-based model to a combination of both approaches.

Other details of the curriculum organization of the different countries are shown in the table below

Table C-1. Approaches to Curriculum Design

Country	Approach
Australia	2
China	1
Fiji	1
France	1→3, 1→2(TVE)
Germany(Bavaria)	3
India	1→2
Indonesia	1
Japan	1
Lao P.D.R.	3
Malaysia	3
New Zealand	2
Philippines	3
Republic of Korea	3, 1-2
Sri Lanka	1→2
Thailand	2
USA(New York State)	3

Uzbekistan	2→3(TVE)
Vietnam	1→3,

Legend: 1 – content-based 2 – outcome-based
3 – combination TVE – Technical/Vocational education

C-1.1 Curriculum interpretation by teachers

Teachers in Australia interpret their curriculum frameworks with some variations across the states and territories and across the subject areas. Teachers in Korea, India, and Malaysia are moving from implementing the curriculum as prescribed, to some degree of local interpretation. In China, Fiji, Indonesia, Lao PDR, and Uzbekistan teachers must implement the curriculum as it is prescribed. The curriculum of all the other countries is interpreted by the teachers and implemented with some local variations.

The general trend is towards the setting of national guidelines with a certain degree of flexibility for interpretation at the local (regional, state, district and school) level.

C-1.2 Curriculum structure

The participating countries offer a variety of courses or subjects in both the primary and secondary level. These subjects include the national language and any regional or local language, foreign languages, science, technology, mathematics, social studies, humanities, vocational education, creative and performing arts, health and physical education. Some related areas are further illustrated under each of the subject denomination, as shown below:

Social Studies	History	Political Science
	Civics	Geography
	Economics	
Health and Physical Education	Physical Education	Health Education
	Games and Sports	Personal Management*
Humanities	Ethics/Religion	
	Moral/Values Education	
	Classical and Cultural Background	
Creative and Performing Arts	Art	Drama
	Music and Dance	
Technical Vocational	Pre-vocational	Home Economics
	Agricultural Science	Business Management
	Industrial/Practical Arts	Services Education
Technology	Computer	Communications
	Electronics	Mechanics

Personal Management includes management of time, life skills, consumer education, safety education, personal hygiene, etiquette

C-1.2.1 Curriculum structure at the primary level

Analysis of the course offerings at the primary level in all the participating countries, shows that while the above content areas are generally covered, time allotments and the nature of the content varies across each subject areas. Foreign languages are offered by Australia, China, France, Germany, Malaysia, New Zealand, the Philippines and Sri Lanka on either a mandatory or optional basis. Six countries, Fiji, Japan, India, Indonesia, Lao PDR and Uzbekistan, do not offer any foreign language at this level.

A major aim of all countries at the primary level of education is functional literacy and numeracy and the national language and mathematics are offered by all the participating countries.

Multi-lingual and multi-cultural countries provide options to address language and cultural needs of their students.

C-1.2.2 Curriculum Structure at the Lower Secondary Level

Analysis of the curriculum structure at the lower secondary level shows that foreign language subjects are offered by all the participating countries, except Fiji. Study of the national language and mathematics still feature in all countries.

In many countries, the study of the Humanities is integrated in other subjects. In China, India and Thailand, technology is an emerging content area in science, while in Australia and New Zealand they are a new distinct subject.

C-1.2.3 Curriculum structure at the upper secondary level

At the upper secondary level, subjects include the national language and any regional or local languages, foreign languages, science, technology, mathematics, social studies, humanities, creative and performing arts, health and physical education. There is an increasing trend towards subject diversification and the integration of technical education into general education.

In addition, Technical/vocational education features in all countries as a preparation for the world of work or for higher education. There is an increasing trend for bridges/pathways between academic and vocational streams.

At this level, the subject offerings are more specialized, more detailed and more specific and there are more options across the subject areas.

At least two language courses, including the national and a foreign language are part of the curricular offerings for all countries. Some countries, e.g. Korea, France, Germany, Australia and Uzbekistan offer a third language either on a compulsory or optional basis.

C-1.3 Curriculum integration

Integration can be viewed as the combination of knowledge of several subjects with similar features into one subject area, usually around themes. An example is Values Education, where

values can be incorporated across subject areas, although Values Education may also be offered as a separate subject area.

In the case of Malaysia, integration is seen as the incorporation of key aspects into the prescribed curriculum. On the other hand, in the USA, integration is the approach used to improve understanding of academic content.

C-1.4 Integration of specific curriculum areas

In the majority of participating countries, values education and environmental education are integrated in existing subjects of the curriculum.

While some countries offer values education, education for the world of work, science and technology, information and communication technology, health education and environmental education as separate subjects they are often also integrated into other subject areas to strengthen their emphasis.

Table C-1.4 Integration of Specific Curriculum Areas

Country	Themes/Areas											
	Values/ International understand- ing/moral/ ethical issues		Education for the world of work		Foreign languages		Computer Informa-tion technolo-gy		Health Educa- Tion		Environ- mental Educa- tion.	
Australia	I	P/S	I	S	D	S	I	S	D	P/S	I/D	P/S
China	I	P/S	I	S	D	S	I	S	D	P/S	I	P/S
Fiji	I/D	P/S	I	S	D	P/S	D	S	D/I	P/S	I	P/S
France	I	P/S	I	S	I/D	P/S	I	P/S	I	P/S	I	P/S
Germany/Bavaria	I		I		D	S	I/D	P/S	I		I	
India	I/D	P/S	D	P/S	D (6-10)	P/S	D/P(1-10)	P/S	I/D	P/S	I	P/S
Indonesia	I	P/S	I	S	I	S	I	S	I	P/S	I	P/S
Japan	I	P/S	I	S	D	S	I	S	I	P/S	I	P/S
Lao P.D.R.	I	P/S	D	P/S	D	S	-	-	D	P/S	D	P/S
Malaysia	I/D	P/S	I	S	D	P/S	I/D	P/S	I/D	P/S	I	P/S
New Zealand	I	P/S	I	P/S	D	S	I/D	P/S	D	P/SS	I	P/S
Philippines	I/D	P/S	D	P/S	D	P/S	I	S	I	P/S	I	P/S
Republic of Korea	I/D	P/S	I	P/S	D	P/S	I/D	P/S	I/D	P/S	I/D	S
Sri Lanka	I	E/S	I	S	S	S	I	US	S	E/S	I	E/S
Thailand	I	P/S	I	P/S	D	P/S	I	P/S	I	P/S	I	P/S
USA	I	P/S	D	S	D	P/S	I/D	P/S	D	P/S	I	P/S
Uzbekistan	I	P/S	I/D	P/U	D	LS	D	LS	I	P/S	I	P/S
Vietnam	I/D	P/S	I	S	D	S	-	-	D	P/S	I	P/S

Legend: I – Integrated
D – Distinct

P – Primary
S – Secondary

C-1.5 Curriculum Coverage

C-1.5.1 Issues Relating to Curriculum Coverage

In designing the curriculum, countries need to make decisions about the breadth and depth of subject content and approaches. Some countries are concerned that the general education provided in their school system requires students to cover too many subjects areas. There are pressures also to add new subject areas such as environmental studies, international understanding, information technology, etc. Other countries are concerned about the number of subjects that students are required to study either because of the pressure this puts on students or because it means that subjects are approached in a way that does not lead to a depth of understanding or to the fostering of creative and critical thinking.

Overcrowding of the curriculum is being caused by schools being asked to take responsibility for a wide range of social issues that were once viewed as the responsibility of families or the community as a whole, e.g. appropriate behaviour and personal etiquette

C-1.5.2 Actions to Address the Issues Relating to Curriculum Coverage

Countries identifies a number of actions to address issues relating to curriculum coverage, these included a continuing review of the existing content so that, where possible, integration can be undertaken rather than new subjects created.

Integration need not be limited to the curricular content but also can include co-curricular activities and optional or elective subjects, both at the primary and secondary levels. For other themes that are seasonal or periodic, resource materials can be provided in the library for general information and reading.

The use of new or appropriate technology is suggested as another means to address the overcrowded curriculum. Where distance education or some other alternative delivery system is possible, content can be learned through these means. Multi-media resources are increasingly becoming more sophisticated and learning may not be confined within the classroom.

Where the overcrowded curriculum results from an inability of curriculum developers to determine the basic knowledge and skills that should go into a subject area, restructuring and prioritization of basic content, deemed relevant, necessary and appropriate at each level and in each subject area could assist. Benchmarks could also be established so that there is basis for monitoring and evaluation.

The perennial issue of pressure from government or groups may be able to be transformed into a healthy working relationship through closer collaboration between competing interest groups. The pressures from these groups need not be accommodated totally and a balance struck between political, social, scientific and academic requirements

The teacher plays a very important role in delivering the curriculum. Resistance sometimes exists because of their lack of involvement in planning and the lack of training/orientation prior to curriculum implementation. This may be alleviated by regular or periodic upgrading of teacher competencies through continuing in-service training.

Continuing research, monitoring and evaluation was also proposed, so that feedback and reports of curriculum reviews could become the basis for curriculum revision or development.

Section D: Curriculum Implementation

Unless there are effective strategies for the implementation of curriculum policies, an education system does not derive the full benefits that should accrue from the school curriculum. This section of the questionnaire sought responses to key aspects which are crucial for curriculum implementation: teacher development; resource provision; classroom strategies and student assessment.

D-1. Teacher Professional Development

A good curriculum will simply remain a curriculum on paper if it is not implemented properly. The teacher and the instructional leaders in the school are the key to the implementation of that curriculum. The questions in this section sought to find out how teachers in the various countries are prepared professionally for teaching, and the programmes available for their continuous professional development.

D.1.1 Pre-Service Teacher Development

D-1.1.1 Requirements for Teacher Education Qualification

All the countries reported requirements for qualification or admission into the Teacher Training Institutions or any form of pre-service teacher education.

D-1.1.2 Framework for Pre-Service Teacher Education

The following table shows the description of national frameworks for pre-service teacher education.

Table D-1.1.2. Description of National Frameworks

Country	Description of National Framework for Pre-Service Teacher Education
Australia	National Standards and Guidelines for Initial Teacher Education
China	
Fiji	National Curriculum Framework
France	National Guidelines for teacher training university colleges
Germany (Bavaria)	State Law on Teacher Education, State Examination Regulations
India	There is no prescribed national curriculum for pre-service teacher education. However, there are guidelines and framework for pre-service teacher education developed by the NCTE
Indonesia	National curriculum for training teachers of each level of education
Japan	National guidelines
Lao P.D.R.	Prime Minister Decree on State Education Personnel adopted in 1993 the various teacher training curricula
Malaysia	Prescribed by the Teacher Education Division of the Ministry of Education and the university
New Zealand	Approval of courses through internal quality assurance and governmental agencies, national professional standards established for beginning teachers (used by individual institutions) as a basis for course development
Philippines	Policies/guidelines (Policy Standards for Teacher Education) provided by the Commission on Higher Education
Republic of Korea	

Country	Description of National Framework for Pre-Service Teacher Education
Sri Lanka	Colleges of education have prescribed curriculum for diploma in teaching
Thailand	
USA (New York State)	General guidelines, institutions develop curricula and syllabi, State approves programs of each institution
Uzbekistan	State approves curriculum of each institution according to established criteria
Vietnam	National curriculum for training teachers of each level of education

All countries or states have some form of curriculum, guidelines, or frameworks for pre-service teacher education.

D-1.1.3 Programmes for Pre-Service Teacher Development

Table D-1.1.3: Title/Length of Program for Pre-service Development

Country	Level of Teacher	Title/Length of Program	Type of Institution	Minimum requirement entry
Australia	Primary	4 year degree	University	Year 12 (secondary)
	Lower Secondary			
	Upper Secondary			
China	Primary	Primary School Teachers' Trial Post Regulation (3-4 years)	secondary normal schools	junior secondary school graduates
	Lower Secondary	Secondary School Teachers' Trial Post Regulation (2-3 years)	universities and colleges	senior secondary school graduates
	Upper Secondary	Secondary School Teachers' Trial Post Regulation (4 years)	universities and colleges	senior secondary school graduates
Fiji	Primary	2 yrs Teacher's Certificate	Teachers' College	Pass in Form 6 (in practice, Form 7)
	Lower Secondary	2 yrs diploma in education	Teachers' College	Pass in Form 7
	Upper Secondary	4 yrs Bachelor of education (PGCE- Postgraduate certificate of education)	University of the South Pacific	Pass in Form 7
France	Primary	3 + 1 + 1	University + Institute Universitaire pour la Formation des Ma(circ)tres (IUFM) + IUFM	Baccalaureate
	Lower Secondary	3 + 1 + 1	University + Institute Universitaire pour la Formation des Ma(circ)tres (IUFM) + IUFM	Baccalaureate
	Upper Secondary	3 + 1 + 1 4 + 1 + 1	University + Institute Universitaire pour la Formation des Ma(circ)tres (IUFM) + IUFM	Baccalaureate
Germany (Bavaria)	Primary	5 yrs (3 + 2)	University + Seminar	Abitur (Gymnasium leaving certificate)
	Lower Secondary	5 yrs (3 + 2)	University + Seminar	Abitur (Gymnasium leaving certificate)
	Upper Secondary	6 yrs (4 + 2)	University + Seminar	Abitur (Gymnasium leaving certificate)
India	Primary	2 years	Teacher training institute	Senior secondary
	Lower Secondary	1 year	University	Graduate (3 years)
	Upper Secondary	1 year	University	Postgraduate (2 years)
Indonesia	Primary	D2 (2 years)	Higher education	12 year (secondary school)
	Lower Secondary	D3 (3 years)	Higher education	12 year (secondary school)
	Upper Secondary	S1 (4 yrs.)	Higher education	12 year (secondary school)
Japan	Primary	Teachers' Certificate	Universities and colleges	?
	Lower Secondary	Teachers' Certificate	Universities and colleges	
	Upper Secondary	Teachers' Certificate	Universities and colleges	

Country	Level of Teacher	Title/Length of Program	Type of Institution	Minimum requirement entry
Lao P.D.R.	Primary	3 yrs (with 8 yrs prior) 1 (with 11 yrs prior)	Teacher training school	Graduate of lower/ upper secondary education
	Lower Secondary	3	Teacher college	Graduate of upper secondary
	Upper Secondary	4 yrs	University	Graduate of upper secondary
Malaysia	Primary	Diploma in Teaching (3 yrs)	Teacher Training colleges	School certificate
	Lower Secondary	Diploma in Teaching (1 yr)	University	Degree
	Upper Secondary	Diploma in Teaching (1 yr)	University	Degree
New Zealand	Primary	BEd (teaching) (3 years)	University, Polytechnic, College of Education	University entrance or equivalent
		BEd (4 years)		
		Diploma of Teaching (2 years)	Polytechnics, College of Education	Partial tertiary qualification and relevant work experience
	Lower and upper secondary	Diploma of Teaching (1 year)	University, Polytechnic, College of Education	A degree
		Diploma of Teaching (1 year)	University, Polytechnic, College of Education	A degree with relevant teaching subjects
Philippines	Primary	Bachelor of Elementary Education (4 years)	College of Education Teacher Education Institutions	High School Graduate
	Lower Secondary	Bachelor of Secondary Education (4 years)	College of Education Teacher Education Institutions	High School Graduate
	Upper Secondary	Diploma of Teaching (1 year)	University, Polytechnic, College of Education	A degree with relevant teaching subjects
Republic of Korea	Primary	4 yrs	Primary education departments of national universities	
	Lower Secondary	4	National or private	
	Upper Secondary	4	National or private	
Sri Lanka	Primary	Diploma in Teaching (3 yrs)	Colleges of education	G.C.E. (A/L)
	Lower Secondary	Diploma in Teaching (3 yrs)	Colleges of education	G.C.E. (A/L)
	Upper Secondary	B. Ed. (3 yrs)	Universities	G.C.E. (A/L)
Thailand	Primary	No (depends on local body- teacher training institution)		High school graduation
	Lower Secondary	No (depends on local body- teacher training institution)		High school graduation
	Upper Secondary	No (depends on local body- teacher training institution)		High school graduation
USA (New York State)	Primary (Pre-kindergarten- 6) Secondary (7-12)	Length of program not specified, but typically part of a 4-year baccalaureate (recently introduced policy requires Master's degree of all newly hired teacher)	Typically, a four-year post secondary education institution with a teacher education program approved by and registered with the State Education Department	Varies by institution, but usually at least a high school diploma
Uzbekistan	Primary	Bachelor/ 3 years 4 years	College Institute	30% out of 226 grades(1998)
	Lower Secondary	Bachelor/ 4-5 years	Institute/University	30% out of 226 grades(1998)
	Upper Secondary	Bachelor/ 4-5 years	Institute/University	30% out of 226 grades(1998)
Vietnam	Primary	Bachelor of primary education (2 yrs)	Teacher training college	Graduation from general education (grade 12)
	Lower Secondary	Bachelor of Lower sec (3 yrs)	Teacher training college	Graduation from general education (grade 12)
	Upper Secondary	Bachelor of Up sec (4 yrs)	National teaching university	Graduation from general education (grade 12)

D-1.1.4 Components of the Pre-Service Teacher Education Programmes

Pre-service teacher education programmes in various countries commonly include four main components: educational methods/teaching methods; professional education/basic education; subject courses/curriculum studies; and teaching practice/field experience. Additional components may include co-curricula activities, self-enrichment, and languages. Topics or subjects like introduction to educational systems of other countries (France), languages (Sri Lanka), emerging Indian society (India) and morality and career education (Thailand):

With few exceptions, all countries report having the four components identified in their pre-service teacher training programs.

D-1.1.5 Processes Undertaken by Pre-service Teacher Education

The measures taken in all countries to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education can be categorized into two main groups; 1) change as prescribed by regulation, and 2) changes initiated by the teacher education institution itself as part of its quality system process.

Table D-1.1.5 Ways changes are Undertaken at Pre-Service Teacher Education

Country	change as prescribed by regulation	Changes instigated by a teacher education institution	Comment
Australia		X	National Guidelines for Teacher Training specify outcomes which include familiarity with current educational policy, however teacher education institutions exercise quality control
China		X	
Fiji	X		Teacher training institutions involved in curriculum changes
France	X		
Germany (Bavaria)	X		State examinations for teachers take into account curriculum changes
India		X	National Council of Teacher Education provides guidelines
Indonesia	X		
Japan	X		
Malaysia	X		Teaching training colleges involved in curriculum change
Lao P.D.R.	X		Create teacher development center to develop new curriculum for teacher training institutions
New Zealand		X	Course approval every 3-5 years by national agency and therefore must reflect current policy changes
Philippines		X	Changes initiated are decided by institution
Republic of Korea		X	
Sri Lanka	X		NIE (National Institute of Education) prepares both school curriculum and pre-service training curriculum
Thailand			
USA		X	
Uzbekistan		X	Each education division an institution designs curriculum according to state standards
Vietnam		X	

While some countries regulate changes to pre-service teacher education, others rely on self-regulation of the teacher education institutions themselves. However, there is a range of ways these countries preserve pre-service teacher education standards. Some examples include Germany (Bavaria) where there are state examinations established by the Education Ministry, teacher licenses in the United States, and teacher registration and professional standards for

beginning teachers set by the Australia and New Zealand educational authorities. In some cases, e.g. Fiji, where the changes are prescribed by regulation the teacher training education institutions are involved in curriculum change.

D-1.2 In-service teacher development programmes

D-1.2.1 Professional development for teachers

A large number of countries provide compulsory in-service training either for all teachers each year e.g. Vietnam, Lao P.D.R., Sri Lanka. Some countries provide or require in-service training for all teachers over a longer time frame e.g. New York State and others for promotion to leadership positions e.g. Australia, France, Germany, and Japan or for relicensing e.g. Philippines, New York State. In addition, there are a wide range of voluntary opportunities for in-service, and a number of countries combine voluntary and compulsory activities.

Compulsory time varies. For example: in Lao P.D.R. (80-180 hours per year), United States - New York State (175 hours every five years), Sri Lanka (300 hours prior to next promotion), Vietnam (1 month per year in the summer).

D-1.2.2 Support for in-service training programmes

All countries provide financial support for inservice education

D-1.2.3 Methods of improving teaching practice

The most common professional development opportunities available for teachers include enrollment in graduate studies, distance learning, membership in professional groups, subscription to journals and educational magazines, attendance in local and foreign seminar-workshops and conferences, staff meetings, refresher courses, inter-school visits, the use of central curriculum advisors, and observance of peer teaching including master teachers.

In addition to the more conventional opportunities a range of methods making use of modern technology are evident. These include the use of the Internet, e.g. Australia, Indonesia, New Zealand, and the United States and distance learning, teleconferences, TV programs and satellite TV e.g. Australia, China, Indonesia, the United States, and Vietnam.

Some countries reported a comprehensive approach to professional development at the school level. This often involves teachers working in teams towards agreed common professional development goals.

D-1.2.4 Incentives for teachers to participate in in-service training

Teachers may participate in in-service training for several reasons, such as to receive a promotion or an increase in salary, to meet relicensing or rectification requirements, and for their own personal or professional benefit.

Country	Career Dev (Promotion, Salary)	Relicensing	Professional Enrichment	Other Requirement	Comment
Australia			X		
China	X	X	X		

Country	Career Dev (Promotion, Salary)	Relicensing	Professional Enrichment	Other Requirement	Comment
Fiji	X		X		
France	X		X		Many activities sponsored by education administration and by professional organizations of subject area teachers
Germany (Bavaria)	X		X		Many activities sponsored by professional organizations (of subject area teachers)
India	X		X		
Indonesia	X		X		
Japan	X		X		
Lao P.D.R.			X	X	
Malaysia	X		X		Move towards in-service as requirements for promotion of teachers
New Zealand	Not mandatory (but recognized as important by employing boards)		X	X	School-based requirement on teachers by employing boards
Philippines	X	X	X		
Republic of Korea					Many activities sponsored by professional organizations (of subject area teachers)
Sri Lanka	X		X		
Thailand					Educational administrative bodies organize in-service training programs under their responsibilities by providing funds
USA (New York)	X	X	X		Relicensing requirement new
Uzbekistan	X		X		
Vietnam	X		X		

Teachers as a professional group are actively engaged in professional development in all countries. The main motivating factors and incentives for ongoing participation are professional and personal enrichment and career development and promotion. In some countries in-service training is required to ensure teachers are able to upgrade their qualifications e.g. Lao P.D.R., and maintain their license to teach e.g. Philippines and New York State

D-1.2.5 Strategies for In-Service Training of Teachers

All countries recognize the importance of providing central support for the implementation of the curriculum. This support is provided as additional central funding, as teaching and learning resources, and as publications to inform teachers, parents, and the community of curriculum changes. In a few countries e.g. Australia, New Zealand, and the United States, information technology is being used to provide curriculum resources and professional development.

D-2. Resource Support

Countries are using a diverse range of materials to support the implementation of new curricula. Material support of various kinds may assist in the provision of information for students, provide a guide to teachers and assist teachers in implementing effective classroom programmes that actively involve the students in learning. This material support may take various forms such as: textbooks, videos, computer software, calculators, equipment and apparatus, multimedia, teacher guides and CD ROMs. The following section was designed to

find out the kinds of support materials countries are currently using to assist teachers implement curriculum change.

D-2.1 Textbooks

Countries use a variety approaches for the development and supply of textbooks. The table D-2.4 shows how the countries develop and distribute textbooks and some comments on textbooks and other teaching learning resources.

Textbooks are used in most education systems to ensure all students are able to learn basic curriculum content. Most countries report that a government agency is responsible for the provision or approval of textbooks e.g. Fiji, Indonesia, Lao P.D.R., and Sri Lanka. In some countries schools select textbooks published by the private sector e.g. Australia, New Zealand, and the United States, while in others they select from an approved list e.g. Fiji, Germany, Indonesia, Japan, Malaysia and the Philippines.

D-2.2 Teaching/Learning Support Materials

There are also other teaching/learning support materials available for schools e.g. teacher guides, video tapes, computer software, CD-ROMs etc.

Besides textbooks, almost all countries provide additional teaching and learning resources e.g. CD-ROM, video, workbooks, software, instructional material, supplementary reading material, resource guides, laboratory equipment, and other teaching aids. These materials are used by teachers to enhance learning programs.

In all countries government funds the development of supplementary materials for teachers and students. In many countries, private publishers also produce and sell materials directly to teachers and schools. In some countries, private publishers must have their materials approved. Instances of government collaboration with the private sector are also noted.

D-2.3 Development process of supplementary materials

Teachers are often involved in the development of supplementary materials, whether working for the government or for private companies. In addition, a wide range of individuals, such as university professors, professionals from business and industry, and professional writers may also be involved.

Germany, France, New Zealand also have dissemination networks of regional and local groups.

D-2.4 Provision of Textbooks and Other Materials

Textbooks and other materials are either provided by the government or purchased by parents. The situation in the participating countries are shown in Table D-2.4.

Table D-2.4 Provision of textbooks and other materials

Country	Government provides	Free Loan	Rent	Parents Purchase	Comment
Australia		Some primary and secondary		Some primary and secondary	
China			† (parents)	Primary and secondary	

Country	Government provides	Free Loan	Rent	Parents Purchase	Comment
Fiji	Primary		Secondary	Secondary and some primary	7 & 8 and junior secondary—books provided by special projects
France		Primary and lower secondary			
Germany (Bavaria)		Primary and secondary			
India	Government school			Private schools	
Indonesia	Primary school (government schools only)	Lower and upper secondary		Lower and upper secondary	Depends on school
Japan	Primary and lower secondary			Upper secondary	
Lao P.D.R.		Primary ed	Lower sec	Upper sec and private schools	
Malaysia		Income-based loan scheme		Monthly income lower than \$400 eligible for textbook loan	Monthly income lower than \$400, textbooks are free
New Zealand		School loans			
Philippines		Public schools		Private schools	
Republic of Korea	Primary school			Secondary (low cost)	
Sri Lanka	Primary and lower secondary			Upper secondary	(no prescribed textbooks for upper secondary; supplementary materials only)
Thailand					
USA (New York)		All schools			
Uzbekistan				Primary and secondary	
Vietnam		Some primary		Secondary and some primary	

Many countries provide textbooks free of charge. In some cases, students can keep the books at the end of the year, while in other countries they are only on loan and must be returned e.g. Lao P.D.R., New Zealand and the Philippines. Governments generally tend to provide textbooks to children during the years of compulsory schooling, but expect parents to assist in funding textbooks in the upper secondary, non-compulsory years.

D-3. Community Support

D-3.1 Extent of community support

Support for curriculum development is provided by parents, the local community, the business community and other non-government organizations. In the participating countries, the situation is shown in Table D-3.1

Table D-3.1 Community support for curriculum development

Country	Parents	Local Community	Business Community	Non-gov't organization	Other
Australia	Involved in school management and school programs	Used as resource	Sometimes develop curriculum materials	Sometimes develop curriculum materials	

Country	Parents	Local Community	Business Community	Non-gov't organization	Other
China	Involved in school management	Children's Palaces for additional learning experiences; provision of additional equipment in rural areas	Donation to schools	Assistance to develop informal education	
Fiji	PTA Management of school	Local gov't Research institutions	Private business reviews curriculum and supplies materials	Reviewing curricula Assist in non-formal education	Religious bodies (support moral education), parents, leaders
France		Provision of additional equipment	Tax for technical and vocational education purposes		
Germany (Bavaria)	PTAs		Sponsor schools		
India	PTAs	Set up own schools outside of government funding			
Indonesia	Teacher and parent association	Local government	Private business	Many different groups, depends on district	Religious groups assist in schools; TPA (Teacher-parent association, meets 3 times/ yr)
Japan	PTAs (small role)	Use of local environment as resource			
Lao P.D.R.	Consultations with parent and student associations		Education Foundation For Needy Students		
Malaysia	PTA	Financial/material support	Scholarships/material support	Material support	
New Zealand	Consultation; helps in class, fundraising; school development committee; PTAs	Sponsor schools; provide experts in class programs; learning experience outside class	Collaboration in resource development; school-industry links; sponsorship; donations	Other ministry resource material; research agency donations	
Philippines	PTAs in each school (provide general support)	Provision of additional help, finance, and materials	Provision of additional help, finance, and materials	Provide instructional aids	
Republic of Korea	Parents interested in school operations and management	Revising and enlarging curriculum, materials development			
Sri Lanka	Participate in school development committee	Participate in school development committee	Occasional donations (library books, infrastructure, other resources)	Occasional donations (library books, infrastructure, and other resources)	Students and alumni participate in school development committee
Thailand					
USA (New York)	PTAs	Local school boards manage schools	Collaborative projects with school	Grant programs for schools and teachers	Various groups can have power if opposed to curriculum
Uzbekistan				Competitions and study programs; introduces curriculum materials	Ustoz Republican Foundation
Vietnam	Give comment and financial support to curriculum	Give comment and financial support to curriculum, maintain school buildings			

Most countries report a trend to encourage parent-teacher organizations, parents and community members to contribute to the implementation of curriculum. In some countries business and non-governmental organizations are providing additional support for schools e.g. New Zealand, the United States, and Uzbekistan. In a few countries, religious groups and alumni associations provide a range of types of assistance.

D-4. Classroom Strategies

D-4.1 Strategies to introduce new teaching approaches

Most countries provide in-service training to teachers to encourage the use of new teaching approaches. In addition, there are many other ways for teachers to access professional development on new teaching approaches. These methods include peer group teaching, the training of expert facilitators to work with other teachers, pilot schools demonstrating new approaches, and modeling of these methods in guidebooks, professional development programs and other media. These opportunities can be provided by the government, teachers' unions, professional organizations, and private enterprises.

D-4.2 Issues and concerns about teaching methods

Countries report several major trends in issues and concerns about teaching methods. Most report a shift from teacher centered instructions to child-centered learning. This also involves encouraging problem-solving, creative thinking, learning to learn, activity-based classroom programs. In a few countries there is a refocus on the balance between learning processes and subject content e.g. Australia, New Zealand, and the United States.

D-5. School-based student assessment

The key issue for the effective implementation of the curriculum involves students and their learning assessment at the school level. Countries use a variety of strategies to assess student learning. School-based assessment provides feedback to teachers with respect to the effectiveness of their teaching and provides students and parents with essential information about student progress.

The following table shows the methods of assessing student performance in the elementary, lower and upper secondary school level. Also included are the purpose or uses of the results of assessment and the methods of reporting the assessment.

Types, Purposes and Methods of Reporting

Country	Elementary	Secondary		Purposes/Uses	Methods of Reporting
		Lower	Upper		
Australia	Structured observation; written and standardized test	Structured observation; written and standardized test	Structured observation; written and standardized test	Report student progress, curriculum development	Percentage and letter grading, checklist of criteria; descriptive assessment
China	Paper and pencil tests, observations, interviews, portfolios	Paper and pencil tests, observations, interviews, portfolios	Paper and pencil tests, observations, interviews, portfolios	Diagnosis, selection of contestants; determine quality of instruction; examine student progress, deciding professional direction	Comments; behavior marks; percentage; place in competition; grade

Country	Elementary	Secondary		Purposes/Uses	Methods of Reporting
		Lower	Upper		
Fiji	Paper and pencil tests; project works;	Paper and pencil tests; project works;	Paper and pencil tests; project works, practical and laboratory work	Evaluate student performance; for promotion purposes; prepare for national and external examinations;	Percentage
France	Paper and pencil tests; portfolio; tests;	Paper and pencil tests; portfolio; tests; laboratory work	Paper and pencil tests; portfolio; tests; laboratory work; projects in TVE	Diagnosis; monitor student progress; decision for promotion;	Grading and comments on achievement
Germany (Bavaria)	Oral/written tests	Oral/written tests	Oral/written tests; point-graded system	Diagnosis; assessment for promotion; reporting to parents	Verbal certification for grades 1-2; written plus point-grades in upper secondary
India	Continuous comprehensive evaluation paper and pencil tests; projects and practical work; school based	Internal reporting; external examination	Internal reporting; external examination	Monitor learning achievements; and effectiveness of instruction	Progress report cards. Observations (elementary); marks (secondary)
Indonesia	Paper and pencil tests; performance tests	Paper and pencil tests; performance tests	Paper and pencil tests; performance tests	Promotion; reporting to parents; diagnosis	Grades
Japan	Paper and pencil tests; practical work	Paper and pencil tests; practical work	Paper and pencil tests; practical work	Diagnosis; requirement for admission	Grade and comments
Lao P.D.R.	Paper and pencil tests; oral tests; observations tele-record	Paper and pencil tests; oral tests; observations tele-record	Paper and pencil tests; oral tests; observations tele-record	For parents to help children; for remediation; to improve the teaching-learning performance;	Ten score grading
Malaysia	Paper and pencil tests; teacher observations folios; practical work	Paper and pencil tests; teacher observations folios; practical work	Paper and pencil tests; teacher observations folios; practical work	To report student progress; diagnosis; teaching effectiveness;	Grade, percentage; descriptive
New Zealand	Paper pencil test, practical work, observation standardized assessments, parent interviews	Paper pencil test, practical work	Paper pencil test, practical work	Measure of performance; to report to student and parents on progress. Diagnostic & formative to improve learning and teaching	Grading system
Philippines	Paper and pencil tests; projects; observations	Paper and pencil tests; projects; observations	Paper and pencil tests; projects; observations	Improve teaching-learning; diagnosis; improve student performance; report to parents	Percentage rating
Republic of Korea	Paper and pencil tests; performance	Paper and pencil tests; performance	Paper and pencil tests; performance	Reporting to parents; requirement for admission	Written comments for elementary; grade and percentage in secondary
Sri Lanka	School based assessment; paper and pencil tests; practical work; assignments; observations	School based assessment from 1998 in grade 6; from 1999 from grade 7-11; public exams in grade 11	Public examination in grade 13	to improve learning, teaching, and assessment practices	Grade; progress records; students profile; polar gram and subject based reports

Country	Elementary	Secondary		Purposes/Uses	Methods of Reporting
		Lower	Upper		
Thailand	Paper pencil test at the end of year	Paper pencil test at the end of semester; authentic assessment	Paper pencil test at the end of semester; authentic assessment	Measure performance (elementary and sec) and making new pass at end of year (secondary only)	Grading system; end of level report to parents and Concerned authorities
USA (New York)	Observation; homework and projects; written exams	Observation; homework and projects; written exams	Observation; homework and projects; written exams	Describe performance; incentive for students for promotion	Percentage and grades
Uzbekistan	Paper and pencil; observations; portfolio;	Paper and pencil and practical work	More paper and pencil; laboratory work in professional and technical education.	Evaluation of student learning; promotion for next grade	Percentage rating
Vietnam	Paper and pencil tests	Paper and pencil tests	Paper and pencil tests	Diagnosis (elementary), assessment for promotion (sec)	Percentage or grades

D-5.1 Developments in Assessment

At the elementary level, the most common ways of collecting data on student assessment are the paper and pencil tests, practical work and teachers' observations. It is almost the same at the lower secondary level with the introduction of laboratory work, authentic assessment in Thailand including project specifics and portfolios, and school based assessment for specific year levels in Sri Lanka

At the upper secondary level, the trend is from written tests to more performance tests across the subject areas. In France and Uzbekistan, student assessment includes projects in professional, technical and vocational education.

D-5.2 Main purposes of assessment at the school level.

School-based assessments are used to diagnose strengths and weaknesses of students, in which case, diagnostic tests are administered at the beginning of the school year or a year level. Assessments are also used to determine student performance and progress in school, leading to, most of the time, promotion or admission to the next grade/year level. Furthermore, assessments are used to report the child's progress in school to parents. The evaluation of student performance is also a means to review the curriculum and therefore results are used to improve not only the curriculum but the teaching and learning process, as well.

D-5.3 Methods for reporting on students' performance.

Student performances are reported quantitatively and qualitatively. Comments and observations describing student performance and progress in class are reported to parents. The comments maybe motivational or may say something about the potentials of the student. In India, exclusive use of observations on student performance are for the elementary level only while in Germany, there is a verbal certification for Grades 1 and 2.

A grading system is adopted in many countries. The letter, numerical equivalents or percentages are used for recording results.

D-5.4 External Examinations

The table explains the types and purposes of external examinations as well as their impact on curriculum implementation.

Countries	External examinations (levels)	Purpose	Impact on curriculum implementation
Australia	Yes, 12 (10 in one state)	Certification; entry to higher ed.	Creation of uniform curriculum; comparability in assessment
China	Yes, 5 or 6, 9, 10, 11, 12	Promotion; entrance to University	Certification of proper assessment; to ensure curriculum is implemented to basic level of educational quality
Fiji	Yes, 6, 8, 10, 12, 13	Performance monitoring (elementary); Promotion (sec) and employment and higher ed.	For curriculum revision
France	Yes, 9, 12	Certification and higher ed.	Incentive for full coverage of curriculum content
Germany (Bavaria)	Yes, 10, 12	Certification and higher ed.	Considerable influence on curriculum
Japan	Yes, 3	Promotion for higher ed.	Review of implementation
Korea	Yes, 12	For University entrance	Uniformity of curriculum; examination orientation
India	Yes, 10, 12	Certification of achievements; qualification	Basis for analysis of performance
Indonesia	None	-	-
Lao PDR	Yes, 5, 8, 11	Certification	Revise curriculum
Malaysia	Yes, 6, 9, 11	6, 9 – performance; 11 – certification	Review of implementation; uniform curriculum
New Zealand	Yes, 11, 13	Certification (along with internal assessment)	Achievement Levels. Informs school planning. Review of Curriculum.
Philippines	Yes, 4, 6	Student achievement	Curriculum improvement
Sri Lanka	Yes, 5 (scholarship ex.), 11, 13	Certification	
Thailand	None		
USA	Yes, 3, 5, 6, (subject wise)	Assess performance	For curriculum implementation
Uzbekistan	Yes, 9, 12	Lower sec. for entrance and vocational ed., upper sec. for higher ed.	Diagnosis of curriculum implementation
Vietnam	Yes, every level	For merit attainment certification	Under consideration to reorganize examinations

Most of the countries report a system of external evaluation except for Indonesia and Thailand. This evaluation is usually at specific levels and at the end of levels, such as end of elementary or end of secondary level.

The purposes of the external evaluation are, for promotion or certification to the next level of education, to determine student performance, and school accountability.

External evaluation has positive or negative impact on curriculum implementation because it provides feedback and data which may be used for curriculum development and improvement.

D-6. Barriers and Constraints to Effective Curriculum Implementation

The effective implementation of curriculum is dependent on a multitude of factors. Countries report that difficulties barriers that have been identified as constraints to effective curriculum implementation include inadequate support instructional materials; large class sizes; language of instruction; out-of-date materials; teachers qualifications, teacher availability; teachers knowledge, skills and attitudes; and the performance of teachers and principals.

D-6.1 Barriers/Constraints to curriculum implementation

Countries reported potential obstacles to effective curriculum implementation. These include:

- Lack of personnel resources (not enough teachers to reduce overcrowding, lack of staff qualifications, and not enough training regarding new reforms); lack of quality instructional materials related to new content and approaches; and lack of appropriate infrastructure.
- Difficulty of managing change: unrealistic expectations of policy makers, desire for immediate results, and inappropriate or lack of implementation strategies.
- Resistance to change among teachers, administrators, and public, often stemming from an overabundance of reform initiatives.
- Conflict between reform goals and pressure on students to do well on entrance examinations.

Section E: Curriculum Monitoring and Evaluation

This section is devoted to overall curriculum evaluation and not to individual student evaluation which was covered in Section D.

E-1. Monitoring and Evaluation

There are a number of ways in which the curriculum can be monitored and evaluated.

Among the participating countries, monitoring and evaluation activities exist both at the local and system level. At the school level, the classroom observation is the most common means of evaluation. Classes may be observed by the head or a subject area specialist, a pedagogical adviser or educational supervisor from the district, province or state education office. Staff meetings are also mentioned as a means to monitor and evaluate the curriculum.

Visits by inspectors or supervisors are also common among the participating countries.

At the system level, national examinations are the most common means of monitoring and evaluating the curriculum. Inspection and supervision by education officers are conducted regularly. Feedback from surveys, reviews and studies undertaken by national or regional agencies are gathered during the monitoring and evaluation of the curriculum. This feedback forms a part of the baseline data for curriculum improvement.

E-2. Curriculum Evaluation

Countries report a variety of strategies for curriculum evaluation such as analysis of curriculum documents with respect to policy statements; validation conferences with relevant stakeholders, consultations with teachers and pilot studies in a few school settings.

E-2.1 Mechanisms used for curriculum evaluation

The participating countries reported a variety of mechanisms/major tools for curriculum evaluation. The most common are internal and external evaluations, pilot studies of curriculum programs prior to implementation, research and reviews conducted by various agencies to look into effectiveness and impact of curriculum implementation, through consultations with various stakeholders, administration of achievement tests to assess performance of students, reports from school inspectors, and government reviews.

E-2.2 Use of results of national curriculum evaluation

Results of national curriculum evaluations are mainly used to provide information for curriculum revision and improvement of standards; to improve the quality of teaching and learning at the school and national levels; to address pressures from political, social and economic groups and ensure balance; and to improve programs for the educationally disadvantaged.

E-3. Monitoring of Local Curriculum

None of the countries reported any fully local-controlled curriculum. However, in cases where there is a local curriculum, it is assumed that this curriculum is developed within the framework of the national/state curriculum. Implementation of such curriculum is monitored by concerned authorities (local school board./district/ province./state).

E-4. Student Assessment for Curriculum Monitoring

Some countries use national achievement studies to evaluate the curriculum. The table below shows the types of assessment, how often it is administered and at what grade level.

Table E-4: Student Assessment for Curriculum Monitoring

Country	Type	Frequency	Grade Level
Australia	International assessment (IEA) State-wide School-based (continuous)	Every year	Years 3, 5 (7) in some states All levels
China	National assessment	Once in the last 10 years	Prim.-Upper sec.
Fiji	National assessment	Every 5 years	Gr. 6, 7, 10, 12, 13
France	International and national tests	Every 2 years for Gr. 3, 6 Every year for Gr. 10	Gr. 3, 6, 10 for all + sample for other grades
Germany (Bavaria)	National exams	Every year	Gr. 10
India	National (NCERT) School boards	Varying period in 10 years	Gr. 5, 8, 10, 12
Indonesia	Year-end, National.	3 times a year for each grade	
Japan	National	Every 10 years	Primary + lower secondary
Lao P.D.R.	National, classroom/school visits, performance tests	Once in 2 years	Gr. 1-3, 6
Malaysia	School based, National assessment International (IEA)	End of year, Every year	All grades, Gr. 6, 9, 11
New Zealand	National, achievement, International IEA	Every year	Year 4, 8
Philippines	National	Every year	Gr. 6, year 4
Republic of Korea	National SAT International (IEA)	Every year for 0.5% of population	Gr4, 6, 7, 8, 10, 11 for NL & Maths, 4,6,7,8, 10 for ST & SS, 7,8, 10,11 for English
Sri Lanka	N/A	N/A	N/A
Thailand	School-based National (proposed)	Year-end, quarter-end Every 2 years	Primary and secondary Gr. 6, 9 12
USA (New York State)	State wide	Every year	Primary and secondary
Uzbekistan	School based continuous International (ADB)	Every year	For all levels
Vietnam	National, schools	Every year	From Primary to upper secondary

Student assessment for curriculum development is a combination of school-based, national and international tests. National tests are administered annually or periodically for selected

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levels, e.g. elementary, lower or upper secondary education. Most countries participate in international testing programmes.

E-5. Research and Development

Analysis of research and development projects over the last ten years indicated that these focused on the effectiveness of the curriculum; student performance, e.g. Proficiency in Languages in France, India, and Lao PDR; Mathematics and Science in Japan, India, and Korea; effectiveness of teaching-learning materials such as Studies on the Use of Textbooks in Sri Lanka and China; and studies on specific content areas like Reforms in Vocational Education in Uzbekistan; and Action Research on the Teaching of Ethnic Language in Lao PDR and Choice of Elective Subjects in Malaysia.

Research is undertaken at various levels such as institutional, national, local and international and the findings are used to improve the curriculum.

Examples of research and studies can be found in Table E-5 below.

Table E-5: Research undertaken by countries

Country	Research/studies conducted
Australia	Studies on literacy, mathematics, science, gender differences, vocational education, assessment and outcomes education
China	Experiments of teaching materials; investigation on the implementation of 9-yrs curriculum
Fiji	N/A
France	Studies on several aspects of all subjects with focus on literacy and role of mathematics in selection of students
Germany	None
India	Studies on language, math, sciences, social sc., work experiences, technical and vocational education, population education, values education, general curriculum
Indonesia	
Japan	Third International Mathematics and Science Study (TIMSS)
Lao P.D.R.	Action Research on Teaching of LAO Language to Children of Ethnic Minorities
Malaysia	Effectiveness of the Integrated Curriculum for Primary/Secondary Schools, Trends in Choice of Elective Subjects of Upper Secondary Students
New Zealand	Factors Affecting School Progress, Evaluation of Teacher Development Programs, National Monitoring Projects, Curriculum Implementation, Assessment Resource Bank
Philippines	Survey of Outcomes of Elementary Education, Impact Study of the Elementary Curriculum, Monitoring and Evaluation of New Secondary Education Curriculum Student Achievement in the New Secondary Education Curriculum, Responsiveness of the Teacher Education Curriculum to the Secondary Education Curriculum
Republic of Korea	Needs analysis, Evaluation of Current Curriculum, International Comparative Studies on Curriculum Reforms
Sri Lanka	Studies on Textbooks, Teaching Effectiveness of Mother Tongue, Studies on the GCE Examinations
Thailand	Effectiveness of Primary School Curriculum, Implementation of the Secondary School Curriculum Thai Children Potentiality
USA	Not available
Uzbekistan	Study on Social and Economic Conditions for Education, Reforms in Vocational Education
Vietnam	Effectiveness of School Curriculum from Primary to Upper Secondary

Summary and Conclusion

This conclusion provides a general summary of the trends that emerged from a consideration of the country reports during the group and plenary discussions. This summary identifies general directions for curriculum policy and implementation being considered by many participating countries. The conclusions have been grouped under four headings that reflect the main sections of the country reports.

Curriculum Policies

During the last decade various efforts have been made in each country to revamp their education systems. The following general trends were reported by many countries.

- There is an on-going commitment to curriculum policy review and development to meet the challenges of the changing technological, social, economical, political, national and global environments. Curriculum policies of participating countries emphasized the goals of social cohesion, economic well-being and personal development.
- Countries appear to be developing curriculum, qualifications and schooling frameworks and structures that are able to respond effectively both to national and international changes and more local needs.
- Participating countries recognize the importance of developing curriculum frameworks that ensure the learning of core content while providing opportunities for greater choice of elective subjects.
- Participating countries recognize the importance of holistic approaches to the curriculum. This approach emphasizes the balance between mental, emotional, physical and spiritual dimensions. Countries also mentioned the need to include child-centred, and activity based learning and teaching approaches which foster creative thinking, problem-solving and encourage self directed learning.
- Curriculum policy development, and/or approval, is retained centrally in most countries. However, there exists a trend to consult a wide range of stakeholders in policy development, and to devolve decision making on implementation issues to the local level.

Curriculum Design

Every country has to make decisions regarding the overall approach to curriculum design as well as to the subject area that will be included in the school curriculum. The following general trends were reported by many countries.

- A trend was identified to move from content based to varying combinations of competency and content based curriculum frameworks that ensure the acquisition of both knowledge and skills.
- The curriculum frameworks are being modified to include a range of new subject areas. These may be either integrated into existing subjects as in the case of environmental education, or introduced as separate subjects such as additional foreign languages. A significant degree of continuity of subjects offered was observed between primary and lower secondary levels in many countries.
- The curriculum overload was perceived to result from a variety of reasons including too much content, too many subject areas and the inappropriate early introduction of some content. There was also reported pressure from the community, lobbyists and politicians to include additional subjects to meet immediate and emerging needs.

Curriculum Implementation

Effective strategies for the implementation of curriculum policies are required to ensure teachers are able to develop and teach according to the planned curriculum. The following general trends were reported by many countries.

- The provision of professional development to help teachers understand content and pedagogical changes is usually supported by central or state governments. Increasingly however, teachers are expected to undertake professional development as an integral part of their professional role.
- The supply of textbooks at primary and lower secondary levels is generally government or state funded while supplementary material is often developed and distributed by both government and private sources. The use of information technology to disseminate curriculum information is increasing and the utilization of a wide variety of media is apparent.
- There is evidence of increasing flexibility in curriculum requirements to enable schools to make more decisions on the best way to implement curriculum policies and to take account of local circumstances and needs.
- The lack of quality curriculum resources, inadequate infrastructure and facilities, under-qualified teachers and the rate and extent of curriculum changes remain key implementation issues for many countries.
- In many countries the priority is to enhance the capacity of teachers and schools to undertake on-going school-based assessment. There appear to be three main purposes for this focus: to enable schools to review more effectively learning and teaching programmes; to monitor student progress; and to provide internal components for public examination.

Curriculum Monitoring and Evaluation

There are a number of ways in which the national curriculum frameworks can be monitored and evaluated. The following general trends were reported by many countries.

- Countries reported a range of strategies to monitor and evaluate the curriculum. These include participating in international surveys, such as the Third International Mathematics and Science Survey, examination results, inspection and supervision and feedback from surveys, reviews and studies. Only a small number of countries reported the use of systematic research to monitor the curriculum.
- There was a consensus of opinion among the participating countries on the importance of continuous efforts to revise their curricula to meet the challenges of the new age, and on the usefulness of international projects such as this study as a forum for sharing ideas.

Annex 1: Research Design and Questionnaire

Part A: INTRODUCTION

1. Title of the Study: A Comparative Study of School Curriculum

2. Background

In the 1980's the National Institute for Educational Research (NIER) of Japan undertook a comparative study of curriculum developments at the primary/elementary and secondary school levels in Asia-Pacific Countries. The aim of this study was to identify and analyze differences and similarities, developments and problems in the school curriculum in the countries concerned, in the context of their particular socio-economic and cultural backgrounds.

That project was carried out by NIER in collaboration with UNESCO, as part of UNESCO-NIER regional activities on education. Eighteen Asia-Pacific countries participated in this project. In 1986 NIER published two volumes on the outcomes of this research project: *Elementary/Primary School Curriculum in Asia and the Pacific*; and *Some Critical Aspects of Secondary Education in the Countries of Asia and the Pacific*.

More than a decade has passed since the above project was implemented and many countries in the region (as well as in other parts of the world) have changed or are currently revising their curricula. As a result, NIER has decided to initiate a new research project, in collaboration with UNESCO, on a similar topic, in order to compile updated information with respect to primary/elementary and secondary school curriculum in the region, including a few countries in other regions. The outcome of this project is expected to provide information on changes and differences in the primary/elementary and secondary school curriculum compared to a decade ago and to contribute to the development of a data-base on school curriculum.

3. Objectives of the Study

The objectives of the Study are:

- (1) to provide a source of research data on curriculum development in the participating countries which will form a basis for improvements in the quality, relevance and effectiveness of school curriculum;
- (2) to review major trends and common concerns in school curriculum; and
- (3) to identify and document strategies that have been successful in solving problems and issues in school curriculum

4. Time Table

The following target dates have been identified in undertaking this study:

- November 1997 - Development of a draft Research Design by the Regional Meeting on the Study of Curriculum in Asia and the Pacific held at NIER
- March 1998 - Finalization of the research design at The Editorial Committee Meeting held at NIER
- April 1998 - Invitation and distribution of a questionnaire to countries
- May 1998 - Identification of Principal Investigators by the participating countries and completion of the Questionnaire
- August 1998 - Returning of the completed Questionnaire by Principal Investigators to NIER
- November 1998 - Comparative analysis of questionnaires submitted by Principal Investigators and preparation of a report to be done at a meeting hosted by NIER (9 – 20 November)

Part B: QUESTIONNAIRE

Explanatory Note

This explanatory note is provided as a guide only. Each country should feel free to add or amend as considered appropriate.

- (1) This project has six areas for research:
 - a) General Information;
 - b) Curriculum Policies;
 - c) Curriculum Design;
 - d) Curriculum Implementation;
 - e) Curriculum Monitoring and Evaluation; and
 - f) Further Comments.

A summary of the purposes of the six sections of the questionnaire and their components is provided at the beginning of each section.

- (2) In answering the items, please use the latest available data and indicate the year to which the data applies.
- (3) If there are any items which do not apply to your country, simply indicate 'N/A' (not applicable/not available).
- (4) Differences exist between some countries in the way secondary education is divided into distinct stages/levels. Many of the questionnaire items, therefore, ask you to identify stages/levels that are appropriate for your country. If secondary education is not divided into stages/levels, then entry of data will refer only to the one stage/level. Where there is a 'pre-tertiary level' which is clearly a part of secondary education, this should be indicated accordingly.

- (5) There are a number of countries that have a state or local education system rather than a national one. If your country has such a structure either complete the questionnaire giving the general overview of the curriculum or select one state or area as the focus for completion. Please indicate at the beginning of the questionnaire the particular approach you have taken.
- (6) This questionnaire does not include space for answers. It is suggested that respondents use a diskette provided by NIER when completing this questionnaire. For those who do not have access to a computer, please submit your answers in writing on separate additional sheets.

Section A: Background Information

The purpose of this section of the questionnaire is to collect general information about your country and its education system. Please provide the following information on your country, using 1998 figures or else those that are most recently available (please indicate year).

A-1. General information

A-1.1 Size of population

Year ()	
Total	Annual population growth rate

A-1.2 Indicate the total number of children/youth in the following age groups, using the latest available data.

Year ()			
Age Group	Males	Females	Total
0-4yrs			
5 - 9yrs			
10 - 14yrs			
15 - 19yrs			

A-1.3 Indicate the major ethnic and language groups in your country, as a percentage of total population.

Ethnic group	%	Language group	%

A-1.4 List the major religious groups in your country

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$US).

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language(s) are taught and at what levels?

A-2. The Educational system

A-2.1 Structure

year ()

Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-Compulsory
			Males	Females	Total	Males	Females	Total	
Pre-school						%	%	%	
Elementary or Primary						%	%	%	
Lower Secondary						%	%	%	
Upper Secondary						%	%	%	

If possible, attach a diagram of the school educational system in your country.

A-2.2 Class size

Level	Average class size
Elementary/Primary	
Lower Secondary	
Upper Secondary	

A-2.3 Teachers

Level	Number of Classroom Teachers			Teacher Student ratio
	Males	Females	Total	
Elementary/Primary				
Lower Secondary				
Upper Secondary				

A-2.4 Number of Schools

Level	Government	Private	Other - please specify	Total
Elementary/Primary				
Lower Secondary				
Upper Secondary	- General			
	- Vocational			
	- Specialized			
	- Others (please specify)			
	- Total			

A-2.5 Specific School Information:

	Primary	Secondary	
		Lower	Upper
Number of school days per year for students			
Division of school year e.g. quarter, semester			
Number of instruction days per week			
Teachers' average number of class contact hours per week			
Time duration per teaching period (in minutes)			

A-3. Any other relevant background information

Please provide here any other background information that will assist in the interpretation of your country response.

Section B: Curriculum policies

During the last decade various efforts have been made in each country to revamp their education systems to bring them into line with social, economic, political and cultural change in the country. These educational changes are reflected in national educational policies and the curricula framework. The main purpose of this section of the questionnaire is to obtain information on this dimension and on the process of curriculum development and change in your country.

B-1. Background

B-1.1 In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.

B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

- B-1.3 What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

B-2. Curriculum change

- B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.
- B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for curriculum development in the next five to ten years, such as: globalization; information technology; communication; and national/cultural identity?

B-3. Curriculum development processes

- B-3.1 Is your country's system of curriculum development centralized, partially centralized or decentralized? Please explain your answer.
- B-3.2 Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-governmental agencies, private companies, etc.).
- B-3.3 In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc.) accommodated in the decision making processes? Please give some recent specific examples.
- B-3.4 In what way does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.
- B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.

Section C: Curriculum Design

Every country has to make decisions regarding the overall approach to curriculum design as well as to the subject areas that will be included in the school curriculum. This section aims to describe the school curriculum in each country.

C-1. Curriculum organization

C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

C-1.2 Please describe whether your curriculum is mainly designed to:

- be implemented by teachers as written OR;
- be interpreted by teachers and implemented with variations OR;
- give teachers total freedom to create the curriculum OR;
- some combination of the above.

Please give examples to illustrate your answer.

C-1.3 Basic structure of the current and/or future school curriculum

Please give the range of subjects offered in your country in years 1 - 9/ grades 1 to 9, giving specific information on the following matters:

- indicate what subjects are compulsory or optional;
- indicate the time allocation for each subject (in hours per year). Note - if your country does not have a pre-set time allocation either estimate or state 'not available';
- How many hours a week are allocated to co-curricula (or extra curricula) activities? Are these compulsory or elective?

	Subject	Grade/Year								
		1	2	3	4	5	6	7	8	9
Compulsory										
Optional										
Co-curricula										
Total										

C-1.4 Integration

When the NIER survey on curriculum was undertaken ten years ago, curriculum integration was identified as a key issue and concern. In that earlier survey integration was viewed as a continuum. At one end of the continuum was combining the knowledge of several subjects with similar features into one subject area while at the other end was an interdisciplinary approach to integration through the organization of the content and teaching-learning process around themes.

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

C-1.5 Specific curriculum areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated area, at what level of schooling they are taught, etc.).

Themes/Areas		How your curriculum deals with the theme/area	Level of Schooling
values/international understanding (e.g. moral/ethical issues etc.)			
education for the world of work			
foreign languages			
computer/ information technology			
health education (e.g. diet, drugs, HIV/Aids)			
environmental education			
Others			

C-1.6 Curriculum coverage

In designing the curriculum, countries need to make decisions about the breadth and depth of subject content and approaches. Some countries believe that the general education provided in their school system requires students to cover too many subject areas. There are pressures, also, to add new subject areas such as environmental studies; international understanding; information technology etc. Other countries are concerned about the number of subjects that students are required to study either because of the pressure this puts on students or because it means that subjects are approached in a way that does not lead to a depth of understanding or to the fostering of creative and critical thinking.

There is also concern that overcrowding of the curriculum is being caused by the fact that schools are being asked to take responsibility for a wide range of social issues that were once viewed as the responsibility of families or the community as a whole (for example, appropriate behavior, personal etiquette, etc.).

C-1.6.1 What are the issues in your country with regard to pressure on the coverage of the curriculum?

C-1.6.2 What steps, if any, are being taken to address these concerns?

Section D: Curriculum Implementation

Unless there are effective strategies for the implementation of curriculum policies, an education system does not derive the full benefits that should accrue from the school curriculum. This section of the questionnaire seeks responses to key aspects which are crucial for curriculum implementation: teacher development; resource provision; classroom strategies and student assessment.

D-1. Teacher Professional Development

A good curriculum will simply remain a curriculum on paper if it is not implemented properly. The teacher and the instructional leaders in the school are the key to the implementation of that curriculum. The questions below seek to find out how teachers in your country are prepared professionally for teaching, and the programmes available for their continuous professional development.

D-1.1 Pre-service teacher development

D-1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

D-1.1.2 Is there a prescribed national curriculum/guidelines/ framework for pre-service teacher education in your country?

D-1.1.3 What is your country's programme for pre-service teacher development?

Level of Teacher	Title/Length of Program	Type of Institution	Minimum entry requirement
Primary			
Lower Secondary			
Upper Secondary			

D-1.1.4 Pre-service teacher education programmes usually include components of education foundations (e.g. sociology of education, history of education); general methods courses (e.g. educational technology, classroom management, assessment); subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practicum. Please describe the general components of the pre-service teacher education

programme in your country.

- D-1.1.5 Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education? Please give specific examples to illustrate your answer.

D-1.2 In-service teacher development programmes

- D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?
- D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?
- D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?
- D-1.2.4 Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?
- D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/voluntary in-service training provided; or teacher guides to the curriculum published etc.

D-2. Resource Support

Countries are using a diverse range of materials to support the implementation of new curricula. Material support of various kinds may assist in the provision of information for students, provide a guide to teachers and assist teachers in implementing effective classroom programmes that actively involve the students in learning. This material support may take various forms such as: textbooks, videos, computer software, calculators, equipment and apparatus, multimedia, teacher guides and CD Roms. The following questions are designed to find out the kinds of support materials countries are currently using to assist teachers implement curriculum change.

- D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:

- (1) Government directly sponsoring the writing, production, and distribution of

text books

- (2) Government approving a particular selection of textbooks
- (3) The choice of textbooks entirely made by schools and/or teachers
- (4) Other methods - please specify.

Please indicate which of the above apply to your country.

D-2.2 What other teaching/learning support materials are available for schools (e.g. teacher guides, video tapes, computer software, CD-ROMs etc)?

D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise etc)

D-2.4 How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

D-3. Community Support

D-3.1 In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO's, the religious community etc) supporting curriculum implementation? Please give specific examples.

D-4. Classroom Strategies

So far the questionnaire has been concerned about the implementation of the planned curriculum. However, the teaching methods employed also have a critical influence on curriculum implementation.

D-4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

D-4.2 What are the major issues and concerns about teaching methods in your country?

D-5. School-based Student Assessment

A key issue for the effective implementation of the curriculum involves students and their learning at the school level. Countries use a variety of strategies to assess student learning. School based assessment provides feedback to teachers with respect to the effectiveness of their teaching, and provides students and parents with essential information about student progress.

D-5.1 Data is collected to assess students' performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc), and by

direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

- D-5.2 There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?
- D-5.3 Performance can be reported as a percentage rating (e.g. 75%, 80%, etc), grade rating: (e.g. A, B, C, etc.) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).
- D-5.4 Does your country have any external examination system? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (e.g. how it might influence the aims/goals of the planned curriculum).

D-6. Barriers and Constraints to Effective Curriculum Implementation

The effective implementation of curriculum is dependent on a multitude of factors. Countries report that difficulties/barriers that have been identified as constraints to effective curriculum implementation include: inadequate support instructional materials; large class sizes; language of instruction; out-of-date materials; teachers qualifications, teacher availability; teachers knowledge, skills and attitudes; and the performance of teachers and principals.

- D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

Section E: Curriculum Monitoring and Evaluation

The main purpose of this section of the questionnaire is to find out whether any programme of curriculum evaluation is in operation in your country and how curricula are revised. It needs to be noted that this section is devoted to overall curriculum evaluation and not to individual students evaluation which has been covered in Section D.

E-1. Monitoring and Evaluation

There are a number of ways in which the curriculum can be monitored and evaluated. For example, monitoring visits by supervisors/inspectors, consultative assemblies and curriculum conferences.

E-1.1 What processes are used to monitor curriculum implementation in your country?

E-2. Curriculum Evaluation

Countries have a variety of strategies for curriculum evaluation such as: analysis of curriculum documents with respect to policy statements; validation conferences with relevant stakeholders; and pilot studies in a few school settings.

E-2.1 Please describe the mechanisms/major tools used in your country for curriculum evaluation?

E-2.2 How are the results of the national curriculum evaluation used in your country? For example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.

E-3. Monitoring of Local Curriculum

E-3.1 In a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?

E-4. Student Assessment for Curriculum Monitoring

Some countries are using national student achievement studies to evaluate the effect of the curriculum. For example, national assessment programmes, local assessment programmes, the observation of classes, performance testing etc.

E-4.1 What types of assessment are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.

E-5. Research and Curriculum Development

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

Section F: Further Comments

If you have any further comments to make that are relevant to the purposes of this questionnaire, please add here.

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Australia

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Section A: Background Information

A.1 General information

A 1.1 Size of population

Year (1996)	
Total	Annual population growth rate
18,311,000	1.2%

Source: ABS 1997a

A 1.2 Total number of children/youth in the following age groups

Year (1996)			
Age Group	Males	Females	Total
0 - 4 yrs	646,335	612,814	1,259,149
5 - 9 yrs	625,606	594,222	1,219,828
10 - 14 yrs	600,844	570,827	1,171,671
15 - 19 yrs	565,592	535,613	1,101,205

Source: ABS 1997b

A 1.3 Major ethnic and language groups as a percentage of total population

The table showing ethnic groups in the Australian population refers to the country of origin of first and second generation Australians (ABS 1998). The language groups table shows returns from the 1996 census indicating the most common languages other than English spoken in the respondents homes. Note that the table refers to the percentage of those nominating a language other than English, not percentages of the total population. A wide variety of other languages make up the remaining 39.8 per cent.

Ethnic group	
UK and Ireland	14.5%
Italy	3.1%
NZ	2.7%
Former Yugoslavia	1.7%
Greece	1.5%
Germany	1.4%
Netherlands	1.3%
Vietnam	1.1%
China	0.8%

Source: ABS 1998

Language group	%
Chinese	15.5%
Italian	11.6%
Greek	7.4%
Vietnamese	6.3%
Arabic/Lebanese	5.3%
German	4.2%
Spanish	3.8%
Tagalog	3.4%
Polish	2.7%

A 1.4 Major religious groups

Religious group	%
Christian	71.1%
Buddhist	1.1%
Muslim	1.1%
Hindu	0.4%
Jewish	0.4%
Other	0.4%
No religion	16.6%
Not known	9.0%

Source: ABS undated

A 1.5 Annual public expenditure on education (\$US)

Total government expenditure on government primary and secondary schooling in 1995-96 was \$A11.213 billion (MCEETYA 1998a). Government schools at that time accounted for 73.6 per cent of schools in Australia. No accurate figures are available for expenditure on non-government schools. On the assumption that the level of expenditure is approximately the same as for government schools, the total annual expenditure for that year would have been \$A15.235 billion. This figure was then equivalent to approximately \$US10.969 billion¹.

Expenditure on government schools in 1995-96 constituted 2.7% of GDP (MCEETYA 1998a). It should be noted that this figure does not include expenditure on non-government schools.

A 1.6 Language

A 1.6.1 Official language

The official language is English.

A 1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum?

There is only one official language, and the study of English is compulsory at virtually all levels of schooling.

A.2 The educational system

A 2.1 Structure

Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or non-compulsory ²
			Males	Females	Total	Males	Females	Total	
Pre-school	1 ³	5	NA	NA	NA	NA	NA	NA	Non-compulsory

¹ An exchange rate of \$US0.72 to \$A1.00 has been used for this figure, based on the average exchange rate for the period referred to.

² Schooling is compulsory from age 6-15 in all states except Tasmania, where compulsion extends to 16. In most states, however, children start school at age 5.

³ Pre-schooling is formally offered in six jurisdictions: New South Wales, Victoria, Tasmania, the Australian Capital Territory, South Australia and Northern Territory. It is not offered in Queensland and Western Australia.

Elementary or Primary	6-7 ⁴	6-12	948,989	899,180	1,848,169	100	100	100	Compulsory
Lower Secondary	3-4 ⁵	12-15	472,923	450,590	923,513	100	100	100 ⁶	Compulsory
Upper Secondary	2	15-18	178,831	192,502	371,333	65.9	77.0	71.3 ⁷	Non-compulsory

Source: MCEETYA 1998a

A 2.2 Class size

Level	Average class size
Elementary/Primary	25.9
Lower Secondary	25
Upper Secondary	21

A 2.3 Teachers

Level	Number of classroom teachers			Teacher:student ratio
	Males	Females	Total	
Elementary/Primary	24,373	77,894	102,267	18.1
Lower Secondary /Upper Secondary ⁸	48,191	53,514	101,705	12.7

Source: MCEETYA 1998a

The numbers of teachers in this table include only classroom teachers. Excluded are additional staff comprising 20.9 per cent of all school staff, such as: special support staff, administrative and clerical staff (including teacher aides) building operations and general maintenance staff. The table below shows the totals with these categories of staff included:

Level	Number of classroom teachers			Teacher:student ratio
	Males	Females	Total	
Elementary/Primary	28,901	100,873	129,774	14.2
Lower Secondary /Upper Secondary	54,824	73,227	128,051	10.1

Source: MCEETYA 1998a

⁴ Four states offer six years (Year 1-Year 6) of primary schooling: New South Wales, Victoria, Tasmania, the Australian Capital Territory, in all cases following a pre-year. South Australia and Northern Territory offer seven years (Year 1-Year 7), following a pre-year. Western Australia and Queensland offer seven years (Year 1-Year 7) with no pre-year.

⁵ Because SA, NT, Qld and WA offer seven years of primary schooling, their lower secondary schooling runs from Year 8 to Year 10.

⁶ Because these years are compulsory, participation rates are close to 100%. There is some evidence, however, based on progression rates from one year level to the next, that the actual figure is somewhat lower, probably below 98% by the end of Year 10.

⁷ The figures for upper secondary refer to retention to the end of Year 12. In 1996, the percentage of 16-year-olds participating in schooling was 79.9%. The percentage of 17-year-olds was 59.1%.

⁸ No separate figures are available for lower and upper secondary, because the structure of schooling in Australia is usually an integrated secondary school from Year 7 or Year 8 to Year 12.

A 2.4 Number of schools

Level	Government	Private	Total
Primary ⁹	5973	2118	8091
Secondary ¹⁰	1115	424	1539

Source: MCEETYA 1998a

A 2.5 Specific School Information

	Primary	Secondary	
		Lower	Upper
Number of school days per year for students ¹¹	196-201	196-201	296-201 ¹²
Division of school year ¹³	three or four terms	three or four terms	three or four terms
Number of instruction days per week	5	5	5
Teachers' average number of class contact hours per week	25	20.8	
Time duration per teaching period	See below		

The duration of teaching periods varies widely in Australia. At one extreme, some secondary schools still operate teaching periods of approximately 40 minutes, and some primary schools operate short sessions informally within longer teaching periods. Equally, some schools, especially at senior levels, operate teaching periods of 90 minutes or even longer. There has been a trend in recent years for secondary schools to move to longer teaching periods (ie away from the traditional 40 minute period).

Section B : Curriculum policies

B.1 Background

B 1.1 Responses to economic, political and cultural contexts

Changes in Australian curricula in the past decade have invariably been conceived and portrayed as responses to perceived changes in the country's social, economic, political and cultural contexts (Connell, 1993).

⁹ Primary schools include combined primary/secondary schools (919 across Australia) as well as special schools (380).

¹⁰ As for the table above, no separate school numbers are provided, since most secondary schools include both lower and upper secondary years. Senior colleges, catering only for upper secondary, have been established in most states but do not usually comprise the majority of senior schools. Where senior colleges have been established, they always provide a general education, although some specialise in particular learning areas, fields of study or vocational areas.

¹¹ Number of school days varies from year to year and from state to state, depending on how certain public holidays fall in relation to school holidays. The figures cited refer to 1998, and cover the range of school days for all states and territories.

¹² In most states senior students often finish the school year after final assessments, and thus have a shorter year. Formally, however, the school year is the same length for all students.

¹³ All states except Tasmania operate four terms per year. Tasmania runs three terms per year.

These changes have been arguably the most far-reaching to occur since the establishment in the nineteenth century of compulsory basic education. They have been stimulated in part by a rapid growth in post-compulsory schooling and in part by the willingness of the separate state and territory school systems to collaborate in national projects (Marsh 1994). Both these developments reflect the view that Australia's economic and, consequently, political future depends on an educated population working in new global and regional settings (Dawkins 1988).

Change at the post-compulsory level has had significant effects on the whole of schooling. At this level, the decisive initiatives since the mid 1980s have been reviews commissioned by governments and conducted by committees of educationists and stakeholders under an independent chair. The first of these occurred in New South Wales (Swan & McKinnon 1984) and Victoria (Blackburn 1985). These were followed by similar reviews of upper secondary provision in every state and territory. A national review of education and training for the post-compulsory age group was chaired by Mr Brian Finn, then chief executive of IBM (Finn 1991). Although some of these reviews are less than ten years old, most state and territory curricula for upper secondary schooling and certification are currently being reviewed.

The terms of reference of these reviews require the committees to take account of the country's current and likely future social, economic and cultural contexts. The reviews of post-compulsory arrangements anticipated major expansion in the proportion of students staying in school, rather than continuing to leave after Year 10 to enter work or training. This raised the question of whether upper secondary schooling should be general or specialised.

The reviews opted for a considerable degree of specialisation but recommended greater breadth of offerings to reflect the increased diversity in post-school destinations of young people into higher education, vocational educational and the labour market. Encouraging young people to stay in schooling or training for four or five years beyond the compulsory age has become a key element of economic policy. Over the period in question, participation in post-compulsory schooling almost doubled and vocational education began to be a significant element in curricula.

The reviews of upper secondary schooling had considerable ramifications for compulsory schooling, Years K-10. Essentially, they exerted pressure on the compulsory years to be a period of general education for all young people. This in turn pointed to the necessity of higher universal standards of literacy and numeracy, and implied a need for common frameworks across the states and systems. In several states these were followed by reviews of compulsory schooling (Carrick 1989, Wiltshire 1994)

The challenge of universalising general education in the compulsory years was met in part by the development of national curriculum statements and profiles (CURASS 1991). This project was conducted under the auspices of federal, state and territory education ministers (then the Australian Education Council) following the adoption in 1989 of Common and Agreed National Goals for Schooling in Australia (AEC 1989) Participants were at pains to point out that the project was a collaboration among all state and territory systems, not one directed by the federal government. Two of the common and agreed goals guiding the project were 'to provide an excellent education ... relevant to the social, cultural and economic needs of the nation' and 'to respond to the current and emerging economic and social needs of the nation...'. .

In the same period other national reviews of subjects such as Civics and Citizenship Education (Civics Expert Group 1994) and Languages other than English (NALSAS 1994) have produced reports and policies that have had a significant impact on compulsory schooling.

The national collaborative process defined eight Key Learning Areas (KLAs) which are now applied across the country to the curriculum of compulsory schooling (Australian Education Council 1994). Most of the eight areas have been recently developed or modified to satisfy what are seen as national needs. The basics of English literacy and mathematics have had benchmarks developed to permit national monitoring of standards, because these are seen as essential to a better educated population. The Civics and Citizenship program is being introduced nationally into the area of Studies of Society and Environment. Technology has seen major growth in computing and information technology studies (Ainley et al 1994). Enterprise education is growing. National targets have been agreed for an Enterprise Education in Schools Program.

The study of languages other than English has increased in primary school and there has been growth in the study of Asian languages as a direct result of government initiatives. A National Asian Languages and Studies in Australian Schools Strategy (NALSAS 1994) recommended a target of 25 per cent of Year 12 students studying a language by 2006, of whom 15 per cent would be taking a priority Asian language. Promotion of Asian language study has been accompanied by an emphasis on the Asia-Pacific region in studies such as geography in response to the view that Australia should be more closely tied economically and politically to its region.

The area of health and physical education is under pressure to include programs that address public concerns such as drugs, road and water safety, sexual behaviour, violence, racism. This last trend to relate the curriculum to immediate social and cultural concerns sometimes provokes the criticism that the curriculum is overcrowded.

The elements of curriculum that are most criticised for not meeting national cultural or economic needs are literacy, mathematics, science and history. Criticisms appear principally in the media from academics, politicians and journalists. The issues raised about literacy and maths are perennial: standards, teaching methods, neglect of basic operations, failure to challenge the brightest. Dispute about science curricula has focused on enquiry methods (as opposed to methods that ground students in the basic knowledge of science) and attempts to introduce courses that relate science to broader social issues. The criticism of history teaching is that systematic learning about history, especially Australian History, is often neglected in school syllabuses. The last criticism had prompted the introduction of Australian Studies in certificate courses and most recently the development of materials for Civics and Citizenship which have a strong historical basis.

In addition to the specific initiatives discussed above, the processes of state and territory boards of studies provide for periodic review of frameworks, courses and support materials. New areas of study, for example in information technology and vocational education, are developed either on the initiative of the board or as a result of ministerial requests. At levels K-10 where much of the detailed decision-making is in the hands of schools, there are usually parallel provisions for review of existing courses and the introduction of new curricula. In

fact significant initiatives in, for example, enterprise education, work education or environmental education are often devised in schools to meet local needs and subsequently generalised to other schools across the country (for example, Curriculum Corporation 1994)

B 1. 2 Goals for compulsory education

Education ministers from states, territories and the national government published a set of Common and Agreed National Goals for Schooling in 1989. This is known as the Hobart Declaration and is the first set of common goals to be agreed to nationally. The Hobart Declaration is currently being reconsidered by a taskforce appointed by the Ministerial Council for Employment, Education, Training and Youth Affairs (MCEETYA). The Taskforce consists of heads or representatives of state, territory and non-government school systems, and has issued a discussion paper (MCEETYA 1998b). The proposed revision of the goals gives greater emphasis than the Hobart Declaration to the needs of a nation within a global economy, and to information technology, vocational education and civics and citizenship education. The outline of a 'comprehensive and balanced' curriculum is made consistent with the eight Key Learning Areas that were developed after the Hobart Declaration:

The arts,
English,
Health and physical education,
Languages other than English,
Mathematics,
Science,
Studies of society and environment,
Technology.

The revised statement emphasises the 'challenge...to invest wisely in the intellectual and technological knowledge, skill and understanding of our young people', and asserts that:

'Successful nations will be those which accept the opportunities that globalisation presents to schooling', and

'... school education, based on agreed national goals, will provide the foundation for young Australians' intellectual, physical, social, spiritual, moral and aesthetic development.'

The general 'talents and capacities' to be developed by schooling in all students are:

- 'skills in analysis and problem solving and the ability to become confident and technologically competent members of 21st century society
- 'qualities of self-confidence, optimism, high self-esteem ..
- 'judgement and responsibility in matters of morality, ethics and social justice ...
- '(to) have a foundation for, and positive attitudes, towards vocational education and training, further education, employment and life-long learning.'

In addition to knowledge in the eight agreed areas, the goals emphasise the skills of literacy and numeracy and encouragement to be enterprising, flexible and adaptable.

The goals seek 'socially just schooling' which will improve participation and outcomes for disadvantaged students and Aboriginal and Torres Strait Islanders, develop 'understanding and respect for Aboriginal cultures and Torres Strait Islander cultures to achieve reconciliation between indigenous and non-indigenous Australians', and develop 'the knowledge, cultural understandings and skills which respect individuals' freedom to celebrate languages and cultures within a socially coherent framework of shared values'.

The goals conclude by saying that they will 'provide a basis for State and Territory school education systems, non-government school authorities and the Commonwealth to work together to ... identify specific national targets, plans and strategies.'

This revised statement of goals was released in May 1998 for a six month period of consultation and public discussion. The Taskforce has also begun work on relating national targets to goals, but this development is in an early stage. Some targets have, however, already been agreed.

B 1.3 Regulation of curriculum

Since under Australia's federal system, the states and territories have retained constitutional and major financial responsibility for school education and in many ways have maintained their own traditions, there is no one pattern of regulation for the school curriculum. Each State government is required to ensure the provision of schooling to all students of school age (usually students from ages 6-15, although compulsion extends to 16 in Tasmania). Within each state, Ministers, departments, statutory authorities and individual schools determine policies and practices on such matters as curriculum, course accreditation, student assessment, resource allocation and utilisation, as well as teacher employment and professional development.

Within each state there are specific laws and regulations to govern the provision of schooling. Legislation is generally silent on the specific elements of the curriculum. An analysis in the late 1980s indicated, for example, that only Victoria had any legislative reference to mathematics, and that was to the requirement that arithmetic instruction was to be given free of charge (Australian Education Council, 1988). At the other extreme, in a national survey in 1990-91 on Studies of society, four states referred to legislation affecting the curriculum for the area, and all cited a range of documents, reports, policies and guidelines which were relevant. In all, over 100 documents were cited (Australian Education Council, 1991).

The New South Wales *Education Reform Act, 1990*, was the most comprehensive recent attempt to articulate curriculum intentions in legislation. It drew on the experience of the United Kingdom, and went well beyond curriculum in its scope. New South Wales now has mandatory syllabuses for all years of schooling, but these documents permit a significant degree of curriculum determination at the school level within a broad framework. Victoria has developed a Curriculum and Standards Framework which is similarly broad, and all other education systems have in place and are mostly revising or renewing frameworks to guide school curriculum practice.

There are two broad categories of schools in Australia: government schools, which enrol over 70 per cent of all students, and non-government schools (the latter including both schools with religious links and others). Government schools operate under the direct responsibility of State education ministers. Non-government schools are not subject to direct ministerial control, but operate under conditions set by State government registration authorities and are required to provide certain minimum educational standards. Where state authorities mandate elements of the curriculum, the requirements usually pertain only to government schools. Non-government schools, however, mostly operate within the same guidelines, and have frequently been involved through their representatives on national or state committees and boards in developing the guidelines.

The Commonwealth Government has a role in school education by virtue of its provision of resources and its interest in the achievement of national social and economic goals. Legislation, such as the *States Grants (Primary and Secondary Education Assistance) Act 1996* provides a framework for the Commonwealth's role. This act provided a simplified structure for Commonwealth funding of schools over the quadrennium 1997-2000 through Commonwealth targeted programs, which are designed to meet emerging priorities and focus activity strategically. The broad areas supported in the current period are literacy, languages, special learning needs, school to work and quality outcomes. In this period, for the first time, the legislation includes a provision for reporting by education authorities on the use of Commonwealth funds in schools.

B. 2 Curriculum change

B 2.1 Major changes in the national school curriculum

The project conducted between 1989 and 1993 to produce a national framework for state, territory and school-based curricula was the first significant advance towards a national curriculum for Australia. For more than a century, first as separate colonies and then after 1901 as sovereign states within an Australian federation, each state developed, resourced and monitored its own curriculum and administered its own certificates. By the middle of the century, this separatism was tempered by the activities of the Australian Education Council (AEC), now the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) which brought together the state directors of education and subsequently the state and federal Ministers of Education, and by the creation of a national educational research organisation, the Australian Council for Educational Research. The 1970s saw major growth in educational projects sponsored by the federal government - in particular to encourage innovation and remedy disadvantage - and the creation of a national Curriculum Development Centre which organised national collaborative projects and promoted a 'core' curriculum for Australian Schools. The Curriculum Development Centre was replaced in 1989 by Curriculum Corporation which is owned by the States as well as the Commonwealth and directed by a Board including nominees of state and federal departments.

In this period, the federal government's lever was funding in the form of special purpose programs, whose funds were designated for specific purposes such as the redress of disadvantage, literacy and so on. These interventions for specific purposes, however, did not set up significant momentum for a national curriculum. When, in 1989, following the adoption of Common and Agreed National Goals, the AEC asked the state and territory Directors of Curriculum to recommend on areas for collaboration in curriculum development,

it was assumed that the process would lead to a greater number of collaborative projects. Any suggestion that it might go further would have brought it to an end. As it was, the participation of the largest system, New South Wales, was only partial.

Collaboration appealed most to the administrations of the smaller systems whose relatively smaller curriculum branches were at the time being required to reduce their staffing severely. In effect, a twenty-year era of lavishly staffed curriculum branches within education departments was coming to an end. A spirit of cooperation among systems had developed as an outcome of interstate and national projects. The prospect that such collaboration might also bolster or save state resources was a further incentive to the heads of the smaller systems (Marsh 1994).

In the event, the project developed a general framework of student outcomes (Australian Education Council 1994, various) across eight learning areas which with varying degrees of hesitation has been incorporated into the curricula of all systems (Board of Studies 1995, Eltis 1995). Progress towards a more common and consistent framework for the curriculum has, however, been limited by the intention of state-based Boards of Studies to maintain different curricula and certification arrangements at the senior secondary level. Arguably, the framework of outcomes is as close as Australia's federal system can get to a national curriculum.

The project began, however, with the more modest expectation that a larger number of collaborative projects would be undertaken. To this end, a 'mapping' of designated areas of curriculum was approved and conducted between 1998 and 1991. Although this was seen by some participants as a way of avoiding decisions, the mapping established two things: first, a categorisation of the curriculum into the eight Key Learning Areas (KLAs) listed in the revised Common and Agreed National Goals and adopted throughout the country; and second, a documenting of the fact that the curricula of the separate States and Territories had vastly more in common than they had differences. This commonality is unsurprising to anyone familiar with the national and international intellectual networks of curriculum developers, but long-standing state rivalries required it to be proved.

Progress from mapping of the existing curricula to active development of curriculum profiles was precipitated by three factors: the international movement towards outcomes-based learning which emphasised outputs in a period of budget tightening; the desire of curriculum developers and school systems to have assessment instruments which would be both superior to short tests and able to encompass the whole curriculum; and the existence of some outcomes frameworks in the states. The last factor was perhaps decisive. Victoria had developed a Literacy Profile which set out staged outcomes for assessing progress in literacy, (Ministry of Education, Victoria 1990) and a national project, based in New South Wales, had been commissioned to develop a parallel profile for Mathematics. There was also a long-standing national project to define levels for learners of Languages other than English in Australia (McKay 1991).

A profiles approach was seen to provide a powerful framework which still permitted flexibility in systems and schools and which allowed for a breadth of assessment and reporting techniques. The AEC soon approved the development of national curriculum statements which outlined the scope of each of Key Learning Area, and profiles which would set out progressive outcomes in each element, or 'strand' of each KLA.

Within learning areas the national project accommodated the major changes in content that was occurring in response to national objectives. Technology incorporated the large shift from craft-based technologies to computing and information technology. The LOTE profile provided a common framework for existing European language studies and the newly adopted Asian languages of economic importance: Chinese, Japanese, Korean and Indonesian for which modern, well-regarded materials and resources have been developed. Following the national mapping exercise, increased attention has been given in Mathematics curricula and materials to Chance and data. A national Civics and Citizenship project is being developed to correct perceived neglect of Australian history and politics in Studies of society and environment. Awareness of the need to change has arisen both within curriculum development and school networks (Technology and Mathematics) and externally from politicians and academics (languages, civics and history).

In post-compulsory schooling, major changes have occurred in vocational education and assessment for certification. As has been noted in B 1.1 these have been the themes of major, virtually continuous, reviews in every state and territory essentially in response to the very large increase in students staying on at school to complete Year 12. Changes, however, are not uniform across systems, each of which has its own curriculum and assessment authority (Russell 1993). Apart from mechanisms to establish comparability of rankings for university entrance and to assess languages of very small candidature, there is almost no support for national approaches at the senior secondary level. Curricula, however, are in an almost chronic state of change, and attacks on their structure and standards are commonplace in the media (e.g. Gill 1995, Craven 1990, Donnelly 1990).

B 2.2 *Likely future change*

The unsettled condition of senior secondary education is likely to persist for many years into the future and to reverberate throughout the whole of schooling. Historically, schooling beyond the elementary school basics of literacy, numeracy and some general cultural knowledge is still in transition from an elite to a mass provision. It is only in the past decade that retention to Year 12 has regularly exceeded 50 per cent (Australian Education Council 1993) and retention currently stands at 71.3 per cent nationally (MCEETYA 1998a). National targets anticipate that by the year 2001, 95 per cent of 19 years olds will have completed either Year 12 of schooling or an initial post-school qualification or be participating in formally recognised education and training (MCEETYA 1995). Government employment and youth policies favour young people staying in education or training. Falls in Year 12 retention since 1992 appear now to have levelled out, but they will make these targets unlikely to be achieved.

At first glance, such targets might appear to imply a divided post-primary or at least post-compulsory system with relatively clear academic and vocational tracks. This is not the case. In earlier periods of expansion of secondary schooling practices such as streaming students on the basis of tested academic ability maintained academic, technical and commercial tracks. In the state of Victoria, for example, separate High School and Technical School systems persisted late into the 1980s (Blackburn 1985). High schools maintained an academic curriculum that articulated into work or university education. Technical school curricula on the other hand articulated into manual work or vocational training. Even then, however, it was not uncommon for an academic background to be preferred for applicants for vocational training.

As school retention grew, it was the technical schools that declined. When the two types were merged in the late 1980s the great majority of young people stayed on in schools that essentially offered an academic curriculum. By contrast, the state of New South Wales introduced comprehensive secondary schooling early (Wyndham 1959, 1962) but with the aid of streaming maintained relatively low transition rates into academic curricula after Year 10 and relatively high participation in vocational education in the separate Technical and Further Education sector. However, here too rising retention in education beyond Year 10 has occurred predominantly in schools with entry to vocational education increasingly after Year 12. Thus despite their different histories both states have the greatest proportion of students in schools with essentially academic curricula. Further, in both states the reviews of the past decade have favoured fitting the increasingly diverse range of students and subjects into a unified rather than a divided certificate structure (McGaw 1997, Aquilina 1997, Lee Dow 1997)

In those systems where certificate performance is used to calculate Tertiary Entrance Rankings (TER) committees of review invariably assert that the curriculum is distorted by the demands of university entrance. At least half the student population, it is pointed out, will not go to university but will probably need further education or training to be employed. They gain little benefit from the increasingly competitive academic curriculum. In all systems, committees of review have recommended larger components of vocational education in schools and hence in certificates. This has happened to some extent. In 1998, for example, all states and territories have piloted apprenticeships in schools, and some states have moved to the English model of a single education and training authority. In much public debate, however, the pressures to both maintain standards in academic curricula and introduce vocational curricula are seen to conflict. Thus vocational curricula make slow headway while academic curricula are assailed for losing their rigour. This is often treated as a structural problem, that might be resolved, say, by dividing schooling and certification; but it is probably also a cultural problem arising from beliefs about the nature and value of various kinds of studies, occupations and the people that work in them. Academic schooling is an established pathway for the middle classes to enter the liberal professions, especially law and medicine (Anderson and Vervoorn, 1983). Crafts and trades are seen as inferior even to low-level white collar work, and national demand for skills has often been met by immigration rather than raising the prestige and standards of training (Keating 1998)

Although these central problems of schooling might not be effectively addressed in the next ten years, some of their closely related aspects will undoubtedly be tackled vigorously. The overall framework of Key Learning Areas will probably be revised to correct overcrowding. Literacy will be a continuing focus for improvement. Schools will steadily be equipped to take advantage of information technology. The contribution of the curriculum to national identity and global consciousness will be explored.

The 'crowded' curriculum and literacy standards are related issues. Between them, the eight Key Learning Areas include almost every subject that was found across the country by the mapping of state curricula. There is no indication of what might be considered core or essential material. Any attempt to do so would not have succeeded at the time, so the position was adopted that such questions would be sorted out by systems or by schools. Further, outcomes in each area were written for all levels of school from K-10.

Having all eight areas fully elaborated fitted reasonably well with secondary school practice, but it poses problems for the early years of primary school where absolute priority has to be given to literacy and numeracy. Primary teachers often argue that they can reduce the crowding by integrating but this makes it almost impossible to estimate the amount of time the school actually gives to its priority areas. There is evidence that time on task affects success in literacy and evidence that extra time spent with slow learners pays off (Hill 1993, Hill 1997). Curriculum crowding and priorities are important issues not only for learners but also for governments and school authorities in allocating funds, staff and resources and for schools in accounting to parents and the community.

Literacy teaching and standards will continue to be scrutinised because it is now widely accepted that failure to learn in the early years of school sets a pattern of failure throughout school and later in employment. Much public debate about literacy consists of unsustainable assertions that standards have declined over the years and that this or that teaching method is the culprit or the wonder cure; but there is also a well-founded consensus that national targets for participation in education and training cannot be met without a rise in general standards of literacy and there is some common ground among experts about the methods that might achieve this. Progress in this area, however, will require governments to increase or re-direct funding.

The spread of information technology is a declared priority of governments (MCEETYA 1998b) but one which can proceed only as quickly as the funding for hardware allows. Increasingly, curriculum materials are being developed in both electronic and print forms, but the supply of hardware in schools is generally insufficient to allow access for all individuals. The potential in information technology for innovation in classroom organisation and teaching methods is a long way from being realised, but systems continue to expand their provision. Commentators frequently warn of the dangers of creating a gap between information rich and information poor schools (Shears 1995) Whether or not this gap persists, there is still certain to be a great increase in curriculum development using the World Wide Web, specialist networks and computer software. This will inevitably give greater emphasis to self-paced learning in certain areas, individualised research in others and encourage communication on global networks.

The imminent introduction of materials for Civics and Citizenship Education will go some way towards filling a gap that has grown in the curriculum over the past several decades. After a period of popularity in the middle decades of the century, the study of the Australian political system virtually disappeared from compulsory schooling. The related study of Australian History has also had a tenuous life. To begin with it was overshadowed by British Empire history and was not established as an academic study until the 1950s, and then only in some universities. Subsequently it became established as an upper secondary study but, given the specialised nature of the curriculum at this level and the growth of areas such as Business Studies it is not widely studied (ACACA 1998). There is some justice in the claim of historians that history, both general and Australian, has been accorded only a minor place in the Key Learning Area of Studies of Society and Environment. The very recently developed studies of Aboriginal and Torres Strait Islander history and culture similarly struggles to find space in the curriculum and teachers trained in its content.

There is no doubt that the issue of how the school curriculum can contribute to national identity, especially through the study of history, will be a theme of curriculum reform during

the next ten years. Political parties of all persuasions advocate an emphasis on history and civics, but only one state, New South Wales, has so far made a study of Australian history mandatory in junior secondary school.

The debate about Australian history and civics in the curriculum may come into conflict with the push to make students more aware of global issues and Australia's future role in a globalised world. The Common and Agreed Goals see consciousness of national identity as integral to developing a successful global consciousness, but this is by no means a settled view within the profession as the presently parlous state of history and civics indicates.

B. 3 Curriculum development processes

B 3.1 Degree of centralisation

Under Australia's federal system education is the responsibility of the six states and two territories that make up the Commonwealth. Although the federal government can exert some influence on curriculum through special purpose funding, its influence is slight by comparison with that of the governments of the states and territories. The private school sector which includes large Catholic school systems is in principle independent of government control but in curriculum matters usually conforms to the relevant state arrangements.

States and territories differ in the degree to which they centralise curriculum. The senior secondary curriculum leading to the Year 12 certificate is highly centralised under curriculum and assessment boards of studies. In most cases, a mixture of central and school-based assessments are based on prescribed syllabuses. This applies to private as well as to government schools.

The picture from K-10 is much less uniform across the states and territories. All states have frameworks of outcomes for the eight Key Learning Areas. Some are the same as the national profiles. Some have been adapted but remain within the structure and spirit of the national model. Some continue to develop distinct syllabuses that refer to outcomes consistent with national ones. In the compulsory years, however, central syllabuses, where they exist, are not detailed. Thus, no matter what approach is used, every state and territory allows scope for school-based selection and adaptation of content and for local development of curriculum. Systems without syllabuses attempt to achieve a degree of commonality by publishing support materials to accompany outcomes frameworks. These discuss and exemplify suitable content, teaching methods and assessment.

A form of centralisation is achieved by system-wide testing based on benchmarks. Testing of this kind is conducted both nationally and within states, principally to survey literacy and numeracy performance. By its nature it has a very limited effect on the detailed content of the curriculum, but it probably affects the emphasis schools give to the areas tested.

B 3.2 Responsibility for initiating curriculum development

The most visible, and arguably the most influential, initiators of curriculum development are central agencies within states and territories, acting either separately or in collaboration with other systems. At the compulsory levels, it could be argued that schools and teachers exert an equal but different influence because of their control of detailed content and teaching methods.

Curriculum development is also initiated by independent educational organisations and by organisations outside education.

As indicated in paragraphs B.1 and B.2 state and territory departments and statutory authorities are the principal agents in prescribing syllabuses and assessments and in developing overall curriculum frameworks and support materials. In some areas of curriculum, especially religious education, Catholic offices of education have a similar role. In recent years, however, state frameworks have either adapted or taken account of nationally agreed frameworks. Both state and national governments initiate and fund special programs. Currently, for example, the federal government funds programs for literacy, drug education, civics and citizenship education and Asian languages and studies.

In general, schools have considerable freedom to create their own curricula. They can select particular elements, such as languages, art forms, technologies, to suit local preferences and they can decide on specific content in most areas. It is common for schools to develop curriculum policies in conjunction with parents and school councils and to promote these to prospective students and their parents.

Independent educational organisations - professional associations, publishers, universities and corporations such as Curriculum Corporation- influence the curriculum by producing materials, reviewing materials, organising seminars and conferences and conducting independent or commissioned research. In general this activity reinforces official initiatives, but it can on occasion initiate a reform in content or teaching method.

Organisations outside education - government departments, business and industry organisations, for example - increasingly see the curriculum as a means of advancing a particular concern. They do this partly by lobbying government and partly by producing materials or sponsoring projects. Many employ education officers. Health departments, for example, are active in initiating programs such as drug education. The Dusseldorp Skills Forum produces an impressive array of policy analysis in vocational and general education and sponsors a major project in work-based schooling (Sweet 1993). The Mining industry produces a large array of curriculum materials and projects for both teachers and schools. The National Industry Education Forum sponsors projects to bring together schools and industry. Some companies, such as McDonald's and B.P. provide vocational education programs (Ainley 1997).

B 3.3 Interest groups

Interest groups are normally accommodated in official policy development processes. The project to develop National Standards and Guidelines for Initial Teacher Education, which reported to the federal minister in December 1997, offers a typical recent example (Australian Council of Deans of Education 1998). The project had an Advisory Committee comprising representatives of teachers and representatives of administrations in government and non-government sectors, representatives of teacher educators and government. The project invited written submissions from organisations and individuals and consulted a large number of organisations representing teachers and teacher educators in every state. A draft of the standards and guidelines was circulated for comment from universities, teacher education organisations, school authorities, teacher organisations and professional standards organisations. The National Curriculum Statements and Profiles went through an extensive

process of consultation with teachers groups, curriculum experts, academic institutions, and organisations representing parents, schools councils and business.

In addition to formal representation and consultation, professional associations of teachers may be involved in professional development related to curriculum initiatives. For example, the federal government funded subject teacher associations to conduct professional development for the national curriculum statements and profiles.

At the school level, it is increasingly the practice to develop the schools curriculum policy in collaboration with parents, usually through school council processes.

B 3.4 National unity and cultural diversity

The revised Common and Agreed Goals for Australian Schooling state that 'schooling should be socially just and ensure that:

- all students have understanding of and respect for Aboriginal cultures and Torres Strait Islander cultures to achieve reconciliation between indigenous and non-indigenous Australians.
- all students have the knowledge, cultural understandings and skills which respect individuals' freedom to celebrate languages and cultures within a socially cohesive framework of shared values.'

To an important extent, goals such as these are realised by the way in which human relations are developed in the whole of school activity. However, there are also specific provisions in the curriculum, chiefly in the key learning area of Studies of society and environment and Languages other than English.

The National Curriculum Profile in Studies of society and environment, for example, includes a strand of Aboriginal and Torres Strait Islander cultures which was developed by Aboriginal and Torres Strait Islander educators. Materials and support for teachers of the strand have increased in recent years.

A major project in Civics and Citizenship Education in Years 5-10 is nearing completion. Materials for this deal explicitly with national identity and values and explore the reasons why Australia is a diverse society and the ways it has dealt with diversity.

For several decades, governments have encouraged the learning of community languages (essentially the languages of recent non-English speaking immigrant groups) both in school and in after-school classes. More recently, governments have established targets for the study of Asian languages and cultures (NALSAS: National Asian Languages and Studies in Australian Schools Strategy, 1994) in recognition of the country's closer ties through immigration and trade with the Asia-Pacific region.

B 3.5 Provision for children with special needs

Australian education has historically had a substantial concern with the progress of students with special needs. Approaches to special provision have changed over time, characteristically moving from separate provision (eg through special schools for students with learning disabilities) to attempts to include almost all students in mainstream classes.

Groups of students who have been identified through the National Strategy for Equity in Schooling (MCEETYA 1994) include:

- students with disabilities, difficulties in learning and/or emotional or behavioural disorders
- students at risk of dropping out of school
- students experiencing disadvantage as a result of socio-economic status or poverty
- Indigenous students
- students from non-English speaking backgrounds who need assistance in the area of English as a second language
- students who are geographically isolated

The national strategy aims to improve access, participation and educational outcomes for disadvantaged students. The strategy identified five priority areas:

- curriculum and assessment
- teaching
- awareness and commitment among the education community
- supportive school environment
- optimal use of resources.

As part of the execution of the strategy, school authorities participate in annual reporting and monitoring of agreed performance measures consistent with the framework developed for the National report on schooling in Australia.

In 1996, the Commonwealth Government reported that grants of \$302 million had been provided under the National Equity Programme for Schools. States and Territories reported significant additional expenditure.

Examples of specific strategies and approaches developed to support students in identified groups include (MCEETYA 1998a):

Students with disabilities

- financial support for the integration of students with disabilities in residential care back into mainstream schooling, further education or training
- professional development programs to develop classroom and other strategies to support the inclusion of students with a range of abilities
- support from specialist staff working with students with specific disabilities
- provision of specialised buildings and equipment
- transport assistance
- curriculum modification
- involvement of parent volunteers

Students at risk

- establishing learning environments outside the normal classroom
- literacy and numeracy bridge programs
- pastoral care programs
- extension programs in areas of student interest or vocational leanings

Indigenous students

- increasing the priority accorded to schooling by indigenous communities
- strategies to raise attainment levels of indigenous students
- strategies to increase the retention of indigenous students
- participation by local indigenous elders in providing information about the history, culture and lifestyles of indigenous Australians and in facilitating the teaching of indigenous languages
- employment of indigenous workers in schools
- involvement of indigenous parents and community members in school programs

Students needing assistance with ESL

- withdrawal from the normal classroom to build language proficiency
- respecting the student's cultural heritage
- weekly community excursions
- curriculum orientated towards the socialisation process
- use of bilingual aides
- classroom support, advice and support materials
- creation of support networks for teachers
- provision of some technical instruction in home languages
- peer teaching
- computer-assisted learning programs

Geographically isolated students

- provision of distance education programs, often using electronic technologies, to ensure a broad curriculum
- provision of satellite programs, access to the internet, e-mail and telematics links
- research into teacher needs along with incentives and strategies to attract and retain teachers in isolated schools
- programs to support and skill teachers
- establishment of teacher networks
- electronic linking
- support for the development of relevant and responsive curriculum programs
- intervention to support literacy and numeracy
- tours to regional and city cultural, social and sporting activities

In addition there is a continuing focus on students experiencing educational disadvantage as a result of gender. Initially, the National Policy for the Education of Girls in Australian Schools aimed to redress poor participation and performance of girls in secondary education (especially in mathematics and sciences). More recently attention has also been paid through the work of the report of the MCEETYA Gender Equity Taskforce *Gender Equity: A framework for Australian Schools*, to the situation of boys who have been identified as experiencing areas of educational disadvantage.

Curriculum design

C.1 Curriculum organisation

C 1.1 Basic approach

The design of the curriculum for compulsory schooling is outcomes-based. The nationally-developed curriculum profiles and their equivalents in the states and territories divide each of the eight Key Learning Areas into a number of strands representing coherent aspects of the area or subjects within the area. Each strand then has about three lines of progressively arranged outcomes. In general outcomes are not related directly to grades or ages. Seven or eight outcomes represent a progression from Year K-10.

Broad descriptions of content are provided either in syllabuses or in illustrative support materials.

A syllabus and examination combined with moderated school-based assessment of assignments is used for Years 11 and 12. The training sector uses a competency based curriculum, some of which is taken up in senior secondary schooling.

C 1.2 Implementation

The intention of comprehensive curriculum frameworks is to give teachers and schools scope to select and interpret the curriculum to suit local conditions and resources. The framework is implemented but with considerable variations. The degree of real freedom to interpret, select or devise curriculum necessarily differs from learning area to area. It also differs from state to state. All early primary schools, for example, work towards the same outcomes in literacy but teachers have control over method. At the other end of the spectrum, schools choose which elements of the arts to offer and teachers have great freedom to interpret both content and method. State policies range from mandating a certain time allotment for broadly specified content to publishing support material which is purely advisory.

With the exception of two systems, senior secondary curriculum is normally designed to be implemented as written; but school-based elements are often included in syllabuses and these allow teachers greater freedom to vary content and propose options (Russell 1993).

C 1.3 Curriculum structure

There is no standard or regulated approach to subject provision or time allocations across the various state and territory jurisdictions. Following the completion and publication of nationally-developed statements and profiles in 1993, all states and territories have adopted eight learning areas as the basis of curriculum development. These are:

The arts
English
Health and physical education,
Languages other than English,
Mathematics,
Science,
Studies of society and environment,
Technology.

Within this structure, however, significant differences are evident. In the more complex and differentiated learning areas, such as Health and physical education and Studies of society and environment, there are differences in interpretation and history which lead to variations in provision. Within some education systems and schools for example, Studies of society and environment is represented by history and geography, while in others it is represented by integrated studies such as social education.

This variation in provision is further complicated by the freedom of schools to determine their own patterns of provision within broad state and territory guidelines or frameworks. Within any one state or territory, it would be possible to identify schools with widely differing subject structures and time allocations. Variations in timetabling arrangements also mean that in some schools, subjects are offered on an elective basis, or in vertical groupings which allow them to be taken by students at different year levels.

For these reasons, it is impossible to offer any comprehensive statement about subject offerings or time allocations. There have been two recent attempts at system level to provide guidance as to time allocations between areas of learning. The Northern Territory has developed a set of guidelines which are explicitly not mandatory for schools (NT Board of Studies, forthcoming). For the early primary years (pre-school to Year 3), the guidelines specify no time allocations, but propose a major focus on language and literacy and numeracy, and attention to social/interactive, physical and creative activities and to activities which contribute to the development of social and cultural knowledge and understanding. In addition, there is expected to be some teaching focus from each of the eight learning areas during every week.

In the middle and upper primary years (Years 4-7), in addition to a paramount emphasis on language and literacy development across all learning areas, the following suggested weekly time allocations apply:

English	at least five hours
Mathematics	at least five hours
The Arts	at least two hours
Health and Physical Education	at least two hours
a Language other than English	at least two hours
Science	at least two hours
Studies of Society and Environment	at least two hours
Technology	at least two hours

In addition, schools should offer access as far as possible to social/interactive, physical and creative activities and to activities which contribute to the development of social and cultural knowledge and understanding.

In the junior secondary years (Years 8-10), the emphasis is on access over time to all learning areas. It is recommended that over the three years, in addition to computer education and religious education at the discretion of the school, all students should spend approximately the following total time in the relevant learning areas:

English	400 hours
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Mathematics	400 hours
Science	360 hours
Social Education	360 hours
Health and Physical Education	240 hours
The Arts	240 hours
Languages other than English	200 hours
Introductory units in Technical Studies	80 hours
Introductory units in Home Economics	80 hours
Introductory units in Business Education	80 hours
Career Education	40 hours

In 1996, the Queensland School Curriculum Council developed a set of similar guidelines, which were reviewed and endorsed in October 1997. These were intended as guidance to curriculum developers working on the state's new syllabuses in the eight learning areas to assist them in determining the range and scope of content to be included in the syllabuses. The time allocations specify 'minimum indicative times for the core curriculum'. The term 'core curriculum' refers not to the whole curriculum, but to 'the essential elements that all students are expected to undertake during the years of compulsory schooling' (Queensland School Curriculum Council, 1997).

The time allocations suggested (in each case referring to total hours of contact time across the full relevant period) were:

Key learning area	Years 1-3	Years 4-7	Years 8-10
English	780	640	240
Mathematics	600	640	240
Science	180	240	180
Health and physical education	180	240	180
Studies of society and environment	240	240	180
The arts	300	400	180
Technology	180	240	180
Languages other than English	0	240	180
System/school designated time	120	320	840
Total	2580 ¹⁴	3200	2400

The evident common factors in these recent attempts to specify time allocations include a shared valuing of the eight learning areas; a commitment to local variation and school decision making within the specified framework; a strong focus on literacy and numeracy in the early years of schooling; an acknowledgment that priorities for the curriculum are different at each stage of schooling; and a recognition of the need for greater curriculum variety and diversity as students progress through the secondary school.

C 1.4 Integration

Integration is less debated as an issue than it used to be. In practice, integration based on themes is widely used in primary schools, but secondary schools remain largely subject-based.

¹⁴ The table assumes an extra 180 hours available across Years 1-3 because students in these years are not involved in sport and recreational studies.

These practices reflect the different nature of staffing. For that reason the management of the area of Studies of society and environment is controversial in secondary schools. Integration is still, however, a major issue in curriculum design, though the debate is often not couched in terms of integration.

Specialist teaching in primary school is usually confined to the areas of Arts, Physical education and LOTE. The remaining areas, with the exception of Mathematics, are thereby open to integration by the generalist classroom teacher. Data on the extent to which integration occurs is not available, but it could well occur to some extent in every primary school. A theme-based curriculum is often seen primarily as a vehicle for language development and the acquisition of basic study skills. It is also seen as a means of avoiding a fragmented, overcrowded and incoherent day.

In their design, most of the eight Key Learning Areas combine or integrate subjects and disciplines. Mathematics and Science have long been conceived as single areas, rather than being divided into arithmetic, algebra, geometry, physics, chemistry etc., as they still are in the senior secondary years. English includes media studies in film and television. Technology posits a common conceptual base for all technologies. Health and physical education combines the active and the theoretical. Arts puts all arts on a common conceptual base. SOSE organises all social sciences and history under a set of concepts and common processes.

Each area has its particular mix of content strands and process strands. Content strands essentially represent the various subjects that have been brought together in the area. Process strands contain the skills or modes of behaviour that are seen as common to the area as a whole. In some areas, such as the Arts, the content strands retain familiar subject names (dance, drama, music, visual arts etc). In others, such as Studies of society and environment, strands attempt to characterise the leading concepts of disciplines (place and space, resources, natural and social systems etc). Process strands deal with outcomes in skills and behaviour such as (in SOSE) investigation, communication, participation and (in Mathematics) investigating, conjecturing, using problem-solving strategies etc.

These devices are essentially attempts to merge or integrate a large number of subjects into a limited number of areas. They were often contested during their development (Marsh 1994, Collins 1994) The decision to define both process and content is widely accepted but the balance between the two continues to be arguable. Should a common content be specified or is it sufficient to use any content that will teach the processes? Is there any gain in defining content strands by concepts rather than as familiar disciplines? Does this degree of integration simplify the curriculum or continue to leave it overcrowded? These are still unresolved questions.

C1.5 Specific curriculum areas

Themes/Areas	How your curriculum deals with the theme/area	Level of schooling
values/international understanding (e.g. moral/ethical issues etc.)	1. Through civics and citizenship education, usually as part of Studies of society and environment 2. As a core element in Studies of society and environment 3. Through initiatives in Asian studies, aimed at English, the Arts and Studies of society and environment	Years 1-10, but especially years 3-10 All All
education for the world of work	1. Through the introduction of vocational education and training in schools 2. Through career education in schools	Mainly Years 11-12 Mainly Years 7-12
foreign languages	1. Through specific subject time allocations	All, but strongest at years 7-10
computer/information technology	1. Across the curriculum, as an emphasis in all subjects 2. In some cases, as a subject (eg Computer Studies)	All Mainly Years 7-12
health education (e.g. diet, drugs, HIV/Aids)	1. As a specific subject (eg Health Education)	All
environmental education	1. As a specific subject, but not in all schools 2. As an element in Science and Studies of Society and Environment (eg Geography)	Strongest at Years 9-12 All

C 1.6. 1 and 1.6.2

There has been a significant recent concern about the overcrowded curriculum. This has focused on the early years of schooling, where it is argued that schools should focus on literacy and numeracy and that their attention is being diverted from these core tasks by increasingly broad demands on the curriculum. The concern at this level arises from research which demonstrates that programs designed to correct literacy problems are substantially less successful after the second year of schooling (Hill 1997). The demands which divert attention from these core activities are seen as being of two kinds: pressures to implement the eight nationally-agreed learning areas (see C 1.3 above) at all levels of schooling; and pressures on schools to incorporate in the curriculum responses to assist in dealing with broader social issues, such as drug use, child abuse, traffic and bicycle safety.

This concern has been taken up by the Commonwealth Minister, Dr David Kemp, who has argued that the curriculum in the early years of primary school should focus on literacy and numeracy (Australian Council for Educational Research, 1997). This view has been reinforced by the development of literacy and numeracy benchmarks at Years 3 and 5, partly to focus attention on what are regarded as the core outcomes of schooling at these levels. The development of benchmarks has had the strong support of the Commonwealth Government and all states and territories, and the literacy benchmarks for Years 3 and 5 were endorsed by Ministers at their meeting in April 1998. All states and territories have agreed to assess students against these benchmarks.

A further pressure on coverage of the curriculum is the availability and capacity of teachers in priority areas. The national agreement on the extension of language study, and especially the study of priority Asian languages (see B 1.1 above), may be at risk because of a shortage of qualified language teachers. This is especially true in the primary school, where there is also concern that the extension of the curriculum to provide explicit coverage of the eight agreed learning areas will place pressure on teacher knowledge and capacity in relatively new areas (such as technology), or areas which demand a strong knowledge base and which are seen to have been unevenly delivered (eg mathematics and science) in the past. The shortage of language teachers is being addressed through recruitment programs conducted by some states and territories as well as by professional development. The concern about teacher knowledge and capacity is the focus of professional development programs, notably in mathematics and science.

D Curriculum implementation

D1 Teacher professional development

D 1.1 Pre-service teacher development

People wishing to teach in Australia are required to have a pre-service teacher education qualification.

National Standards and Guidelines for Initial Teacher Education to be used in the accreditation of courses leading to these qualifications were published in February 1998 (Australian Council of Deans of Education 1998).

Level of teacher	Title/length of Program	Type of institution	Minimum entry requirement
Primary	4 year degree	University	Year 12 completed
Lower secondary	ditto	ditto	ditto
Upper secondary	ditto	ditto	ditto

In general, pre-service courses include professional studies, content studies and field experience. The National Standards and Guidelines advocate an even balance of professional and content studies. Professional studies which cover the theoretical and practical aspects of teaching, such as literacy and numeracy, teaching and learning processes, behaviour management, educational technology and assessment and evaluation, should occupy about two years' study. Content studies in the learning areas students intend to teach would occupy the other two years. A 100 days of field experience includes a minimum of 80 days of supervised in-school experience. The balance, however, is different in end education diplomas which add one year of professional studies to at least three years of content studies for a general degree.

D 1.1.5

Pre-service teacher education is conducted by education faculties within independent universities. Their procedures for ensuring that staff are up-to-date in their field are determined either by general university policy or faculty practices. There does not appear to be any pattern in education faculties that could be generalised or examples that would be typical.

The national standards and guidelines, however, specify graduate outcomes, among which is familiarity with current documents and trends in educational policy.

D 1.2 *In-service teacher development*

Patterns for in-service teacher development are not uniform across systems and sectors. Overall participation in in-service is voluntary, but some programs - for example, Reading Recovery - require participants to take an in-service course. In-service for incoming principals is usually mandatory.

Governments, both state and federal, fund teacher in-service, both as a matter of policy and as an element of industrial agreements with teachers' unions. In general, the Commonwealth attaches its funding to programs - the Civics and Citizenship program is an example - while the states take responsibility for both basic professional development and some specific programs. The government of Victoria, for example, allocates one per cent of its recurrent expenditure to professional development and distributes it to schools on a per capita basis. It is normal practice for major innovations in curriculum to have funds earmarked for professional development.

A great deal of in-service development, however, is undertaken by teachers largely at their own expense. This takes the form of additional post-graduate study, membership of and attendance at the activities of professional associations, professional reading and participation in school-based or program-based professional development outside teaching hours. Schools play a large role in organising in-service on curriculum, both on agreed pupil-free days and out of hours.

To date, school authorities and teachers have resisted any formalising of professional development into credits for promotion. Teachers will include additional qualifications and attendance at in-service in their CVs, but these are seen as matters for appointing authorities to take into account rather than being required. Motivation for in-service is often stimulated by overall school planning and by teachers' desire to understand and implement new programs or methods. In situations where teachers devise professional improvement plans as part of the school's cycle of review, in-service necessarily plays a large part in the teachers career development, but this is not yet a widespread and acknowledged practice.

As the pace and scope of curriculum change has accelerated, there has been a consequential acceptance that innovations cannot take root without a commitment to professional development. New programs therefore normally incorporate materials and opportunities for professional development. Whether the opportunities are sufficient to keep up with change is a matter of much contention.

D 2 Resource support

D 2.1 *Textbooks*

The choice of textbooks is usually left to teachers or school faculties but reviews in professional publications can be influential as can suggested reading lists in association with syllabuses. Commercial educational publishing continues to be a large industry.

Except in special circumstances school authorities no longer publish or prescribe textbooks but they effectively commission some student material by commissioning and funding projects. Boards of Studies publish support materials for teachers and encourage if necessary commercial production of texts for students. The Curriculum Corporation, a semi-government agency, is the main organisation to receive such commissions. The Corporation publishes student materials in subjects such as Asian languages, mathematics, civics and vocational education. Corporation publications are normally sold in the textbook market, but some, such as the civics and vocational education materials are distributed free

D 2.2 Support materials

National and state frameworks and projects are normally accompanied by support materials and teacher guides. These continue to be mainly in printed form, since this is the only universally accessible form, but videos, CD-ROMs and computer software for both teacher and student use are becoming common. Support services are also making increasing use of the World Wide Web. It is assumed that materials will more and more be in electronic form, but the pace of this change is limited by the provision of hardware in schools. Printed material includes pages that can be photocopied.

D 2.3 Materials development process

Curriculum materials development by government or semi-government agencies is usually supervised by a committee of the major stakeholders and put through consultative processes and school trials. Commercial publishers essentially rely on authors and editors. Organisations outside education (business and industry, government agencies) either commission an agency such as the Curriculum Corporation or employ officers and consultants with educational backgrounds.

D 2.4 Provision of materials

The great bulk of student materials is bought by parents at commercial prices. Occasionally a government funded project provides student material free for reproduction by schools. The Civics and citizenship education project, for example, entitled *Discovering democracy*, will provide free materials to all schools in Australia (government and non-government) to support the implementation and improvement of teaching about civics and citizenship. This arises from a substantial funding commitment by the Commonwealth Government in response to a report (Civics Expert Group, 1994) which drew attention to weaknesses in student knowledge and understanding in the area.

D 3 Community support

It is not possible on the evidence to gauge support among the community for curriculum implementation. Curricula, teachers and teaching methods attract both condemnation and praise in the nation's media. Public opinion surveys tend to show support for the local school but an overall preference for private, fee-paying schools over public schools. Attitudes specifically to the curriculum are often not clear in surveys. Common targets for attack are methods of teaching literacy and methods of assessing and reporting achievement. Approval tends to refer more to social and custodial issues than to the curriculum.

There are, however, some indicators of support. The trend to devolve more responsibility to the school level has often been accompanied by changes in school governance which allowed for greater participation of parents and the community in developing policy. On the whole, members of the public appear to be keen to take part in school affairs and to support its

programs. Some of these programs invite parents to take an active role in the school, for example by listening to children read, and such programs appear to be popular.

Business and industry organisations now take an active, positive approach to schooling. Major employer organisations and industries employ education officers to oversee development of programs, materials and policies designed to support schools. (NIEF 1992) These activities now cover a wide range and include materials about industries and the economy tailored to fit curriculum frameworks, programs to place teachers and students in workplace situations, vocational educational programs, some of which are accredited for certificates, apprenticeships based in schools and policy statements used in advocacy with governments.

Finally, the acceptance that solutions to many health and social problems have to include educational programs indicates an underlying faith in the effectiveness of the school system. In some cases, such as inoculation against diseases, this is a simple matter of logistics, but more often - in education about sex or drugs, for example - it involves questions of values and attitudes which the community clearly thinks can be entrusted to the skills, sensitivity and fair-mindedness of teachers and schools.

D 4 Classroom strategies

D 4.1 *Strategies.*

It is universally accepted among curriculum developers that change in teaching approaches is a long and uncertain process, and difficult to simply mandate. When it occurs it does so through a variety of planned and informal means. Strategies for change in Australian systems range from direct provision of in-service in, for example, approaches to literacy teaching to indirect reinforcement of structures and contexts likely to promote change. The latter has involved giving greater responsibility to teachers to plan and manage change, funding teachers' associations to promote particular changes, introducing reporting mechanisms that imply certain approaches, maintaining means of communication among teachers and schools, encouraging and publicising innovative and best practice.

D 4.2 *Issues of teaching method*

In compulsory schooling, at least two issues of teaching method regularly arouse controversy in both the community and the profession: the teaching of reading and writing, and the comparative merits of instruction versus enquiry. A further two that tend to preoccupy the profession more than the wider community are the use of technology for individualised learning and the related but more general question of class management.

Disputes about the teaching of literacy in Australia echo polemics throughout the English-speaking world. For some years the battle lines have been drawn between the ascendant whole language approach and the resurgent phonics approach. Neither side gives much quarter even though a body of expert opinion maintains that a successful approach needs to combine elements of a number of approaches. Perhaps because of the unquestioned importance of the issue, and the understandable anxiety of parents, perhaps because of professional vested interests, the debate seethes with emotive and extravagant claims. Since no one has implemented a method or methods that indisputably succeed for all and raise general standards of literacy, the issue will stay alive well into the future.

Claims from time to time that children no longer know facts, of science, history, geography, literature, reflect unease in the community that an emphasis on investigation and problem-

solving may lead to neglect of concrete knowledge. For teachers this apparent conflict presents itself as a choice between traditional classroom lessons and facilitating individual and group projects, and hence as an issue of motivation and classroom management. It also intrudes on the question of values or attitudinal education, which in a secular school at least requires that students discuss issues freely and form their own views.

The goals and frameworks of the curriculum appear to favour active, investigative, questioning classrooms, but there is a persistent question as to whether such an approach will give students enough knowledge to progress through schooling. Certainly at the senior secondary level where content is largely mandated teachers claim that they have to use a lot of direct instruction to cover the course. At that point they are inclined to deplore their students' lack of background knowledge.

For a long time the rhetoric of modern schooling has envisaged students both progressing at their own pace and taking part in active investigative work with other students. To enact this rhetoric requires abundant, well-organised resources and expert class management. The advent of information technology has enhanced this rhetoric, to the point where students are imagined working outside the classroom on self-paced programs, perhaps under the supervision of ancillary staff, with much reduced time in large groups. In these scenarios, teachers become the high level organisers of studies and mentors of students. (In some scenarios, classrooms become 'teacherless'). Even though this is still a distant prospect, there is enough hardware and software in schools to make the rhetoric of individualised learning seem closer to realisation, and to raise speculation about the ultimate role of teachers.

At the postcompulsory level, assessment and work-based learning are contentious. The main issue in assessment is the comparability of school assessments with examination marks in arriving at an overall assessment for Year 12 and Tertiary Entrance. A further issue is the comparability of subjects: are some inherently harder than others and are some taken by less talented groups than others? Various methods of moderation (of school and external assessments) and scaling (of subjects) are used, but their effects on teaching methods, subject choice and opportunities for further education make them perennially contentious. The weighting to be given to work-based learning and work experience is an aspect of this question. The lower prestige accorded to vocational education against academic education takes on an acute form if the vocational education is work-based, as it is in, say, apprenticeships. The failure of authorities to agree on questions of comparability in this area can be a factor in the studies being excluded from the school curriculum.

D 5 School-based Student Assessment

D 5.1 Emerging issues in assessment

The national profiles of outcomes and their related frameworks in the state and territory systems were devised as aids to both curriculum development and reporting of student progress. Examples of students' work illustrating achievement of or progress towards outcomes are provided with the profiles.

The overall philosophy of assessment of outcomes is that a wide range of techniques should be used and that progressive student records should be kept. Periodic assessments - at end of term or end of year - are based on cumulative records. Software has been developed to

maintain records of assessments against outcomes, and is supplied to schools in most systems. These records can be used for school planning, monitoring of learning and reporting to parents. The range of recommended methods of assessment include structured observation, where the teacher checks performance of predetermined aspects of behaviour, marking of selected classroom works usually written or practical, standardised tests, and assessment of project work, portfolios or reports of extended assignments. This progressive data is used periodically as the basis for global assessments of a student's progress towards outcomes. (Hannan 1996)

Moves to replace end of term assessments derived from tests and assignments with cumulative assessments gained ground over a long period, but the allying of cumulative assessment to common outcomes is very recent. Issues of records management and comparability of assessments are still being worked through and can be expected to persist for a good while. In addition to outcomes, more specific and detailed benchmarks are being developed to monitor, for example, literacy and numeracy on a system-wide and national scale. The validity and usefulness of the short tests used to gauge the achievement of such benchmarks is challenged, especially by teacher and parent organisations. A successful testing program, however, helps to establish and improve the comparability of teacher and school-based cumulative assessments. Recent research indicates that teachers' assessments based on profiles are reliable and consistent (Hill 1993). The techniques used in recent mass testing programs in several states have earned Australian researchers a reputation as leading innovators in testing.

Questions of records management, the structuring of assessment and comparability of assessments will continue to be major issues into the future.

D 5.2 Purposes of assessment

School level assessment is treated mainly as a basis for reporting to parents. It may figure in decisions about promotion to the next grade but promotion depends predominantly on social considerations. Assessment for diagnostic purposes occurs systematically only in some areas, such as early literacy.

D 5.3 Rating methods

Percentage grading, letter grading, checklists of criteria and descriptive assessments are all used by Australian schools, and there is no comprehensive data on what is most prevalent. It is likely that five point letter gradings, checklists of criteria and descriptive statements are preferred to percentage grading in most systems. The changeover to reporting on outcomes favours descriptive reporting based on stated criteria, combined with periodic standardised testing to maintain the comparability of global judgements of progress.

D 5.4 External examinations

Every state and territory has an external certification system at Year 12. This has the double purpose of certifying school completion and ranking students for entry to tertiary institutions. One system also has a Year 10 completion certificate using examinations. External examinations are a prominent but by no means universal feature of assessment for certificates. At one end of the spectrum are two systems which use moderated school assessments for subjects and provide additional tertiary entrance data by means of a core skills or scholastic aptitude test. At the other end are the systems (the majority) that use a combination of external examinations and moderated school assessments. The weighting given to the external

examination component varies from system to system and from subject to subject, but it is usually decisive in calculating the ranking for tertiary entrance.

External syllabus-based examinations necessarily create a uniform curriculum that may contain options but is otherwise rigid. It is partly in response to this in a situation of greatly increased retention rates (and partly in consideration of students who do not perform at their best in examination conditions) that systems have either abandoned external examinations or combined them with moderated school assessments. The present arrangements, however, reflect a wide consensus that an element of external examining is necessary to ensure comparability of assessments.

Some proponents of increased external examining say it is necessary to maintain standards, but this argument is undermined by the fact that grades are distributed statistically and reflect the quality of the cohort rather than any absolute standard. Opponents of external examining claim that undue weight is given to the external component in the process of scaling subjects and that this devalues school assessments. Both arguments, however, merge with arguments about the influence of tertiary entrance ranking on the curriculum. Tertiary ranking based on the certificate undoubtedly biases the curriculum in favour of a set of academic subjects that contribute best to the high rankings required for entry to prestigious faculties. This is contrary to the stated goals of schooling; but it is a separate issue from that of external examining. A narrow and intense competition for rankings would probably distort the curriculum no matter how performance was assessed.

In addition, all states and territories conduct regular, mostly annual, statewide assessment programs in the primary school years in literacy and numeracy. A national agreement has now been reached that these assessments will occur annually at Years 3 and 5 in all states and territories, and, in those jurisdictions which conduct only sample testing, will move towards testing of all students at these levels.

D 6 Barriers and constraints to effective curriculum implementation

The greatest constraints on curriculum implementation is the capacity of teachers and schools to absorb change, and the capacity of school authorities to provide the necessary resources. Change can also be hindered by inadequate technical knowledge or lack of general cultural consensus.

In recent years, change itself has been a barrier to change. The curriculum has been under constant review at all levels for over a decade, and the nature of the school population at secondary level has changed dramatically. At the same time, the structures of departments, support services and school administrations have changed enormously. As a result, teachers and principals complain frequently either of overload or lack of support.

These barriers can perhaps be lowered by professional development and increased resources, but there is a tendency for expectations among curriculum designers and school authorities to exceed what it is feasible to fund. Expectations for information technology, for example, are ahead of the capacity of authorities to provide equipment. Changes in teaching methods, to take another example, can require not only massive professional development programs but also arguably reductions in class size, changed staffing profiles and re-shaped classrooms.

Large scale resourcing has to be staged, but this reality can cause a loss of confidence in and commitment to change.

The fact that Australia has a well-qualified teaching force means that change cannot be simply mandated. Teachers have to be involved in devising change and be made partners in its implementation. This will give better guarantees that change will be implemented, and indeed initiated at school, level, but it is a constraint that can be overlooked in the political process which values relatively quick results.

The recent history of curriculum change in Australia demonstrates the importance of technical and contextual factors in curriculum implementation. Whereas once, the educational autonomy of states and territories would have been a formidable barrier to the implementation of national initiatives, this is now not so much the case. It is arguable also that national frameworks would not have happened without the technical advances made in profiling student progress. Confidence in such matters as assessment and literacy teaching also depend greatly on the development of accepted techniques methods and criteria. In a larger context, certain issues of curriculum, such as the teaching of history, citizenship or personal and community health depend for their implementation on a cultural consensus which may have to be deliberately negotiated and cultivated.

E Curriculum monitoring and evaluation

E 1 Monitoring and evaluation processes

Review of school activity including curriculum is undertaken on a regular basis at both school and system level. At school level, a Curriculum Co-ordinator organises staff meetings, in-service and conferences throughout the school year. At system level, annual data collection, one-off surveys and regular testing in the basics contribute to a statistical picture of curriculum. Some programs sponsored by government or other bodies document the program by means of case studies. This has happened recently, for example, with Enterprise Education and School-Industry projects. Official and professional publications also publicise cases of good practice (Keating 1995)

Independent research organisations further shape the overall picture of schooling by analysing official data and gathering their own data or case studies. Some of these are statutory bodies, some based in universities and some private. Research of this kind is usually funded by government either by tender or commission or by submission for research grants.

Arguably, the most important process of evaluation is the practice of occasional review. This has been outlined in Section B. Reviews cover the whole curriculum at a certain level or specific aspects, such as Civics and Citizenship. The process normally involves surveying the current situation, inviting submissions, consulting on drafts and recommending change where necessary.

E 2 Curriculum evaluation

2.1 Evaluation mechanisms

The evaluation activity outlined above draws on documents, officially gathered statistics, specific purpose surveys and expressions of opinion.

A committee of review, for example, will search and summarise the official and research literature, commission surveying if necessary, invite public submissions, conduct consultations with key stakeholders. School authorities gather general data, commission research, conduct mass testing or sample testing and organise seminars, conferences and publication to discuss issues of curriculum and administration. Independent researchers will analyse official documents and data, conduct sample surveys and compile case studies. It is accepted that research and evaluation should where possible have a tangible benefit to the subjects of the research. Thus, for example, survey test results relevant to each school are returned to the school, and researchers working with a sample of schools try to integrate their work with the school's developmental processes.

2.2 Uses of evaluation

Evaluation is used both to influence curriculum policy and to effect school improvement. Programs to redress educational disadvantage, for example, are underpinned by an extensive research literature on social selection locational disadvantage (Teese 1993, 1995, Lamb 1991). The finding of the Civics Experts Group led to development of new policy. The stated aim of mass testing of literacy performance is to raise overall standards of reading and writing by indicating where and to what extent intervention or new programs might be needed.

E 3 Monitoring of local curriculum

In general Australian schools are able to design local components within the overall framework of Key Learning Areas or as additions to it. These components are usually reported on at the local level and frequently require community involvement, but, apart from perhaps being publicised as case studies, local components are not regularly monitored within or across systems.

E 4 Student assessment for curriculum monitoring

Australia participates in periodic international surveys of secondary mathematics and science and conducts national testing in literacy and numeracy at Years 3 and 5. These are in addition to state testing of literacy and numeracy. **BRUCE Precise reference?**

The mass tests used provide snapshots of student performance at a particular time. For various reasons, such as their infrequency, take-up and the changing of definitions and instruments, they have not proved very informative for comparisons over time. Nor do they relate performance to the nature of the curriculum or to teaching methods.

E 5 Research and curriculum development

This section not yet complete.

F Further comments

Any description of national schooling in Australia must be read in the context of federal arrangements. Government school systems are based in states and territories and each has been shaped by a history of separateness that goes back to the last century when the present states were separate self-governing colonies. On top of this there is a large sector of non-government schools accounting for nearly a quarter of the school population. These disparate systems and sectors are held together today by common national goals, common professional

traditions, national administrative, teacher and curriculum organisations and a degree of intervention, via funding, by the federal government. That said, however, it is interesting that these historically separate systems now have so much in common. This is undoubtedly an indication of the powerful influence a country's economic and cultural aspirations has on schooling. It may also be an indication that in today's world separate systems are likely to share common patterns and issues not only within a nation but also between nations—that we are perhaps coming closer to international curricula.

This commonality, nationally and internationally owes a great deal to the influence of professional organisations and associations that organise discussion and circulate information and views. Curriculum issues are genuinely international and are discussed and studied at an international level. Modern practices and technologies ensure that this will happen irrespective of the desire or actions of national governments.

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China

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Building a Chinese Primary and Middle School Curriculum for the 21st Century

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Introduction

Since the People's Republic of China was founded, the development of primary and middle school curriculum has gone through four stages: 1949-1957- reforming the old curriculum system into a new one; 1958-1965- reflecting on and summarizing past experiences and lessons, stressing basic knowledge and skills, and breaking through the limitations of a unitary compulsory curriculum; 1966-1976- deleting so much basic knowledge from textbooks that educational quality descended dramatically because of the political movement of Cultural Revolution which excessively emphasized politics and practice. However, from 1977 to the present, the focus shifted towards establishing a new curriculum system which could meet the needs of socialist construction while bringing order out of the chaos caused by the Cultural Revolution.

After the 1990s, the Chinese primary and middle school curriculum has developed tremendously. First, a sound curriculum system was created, which included five types of curricula: (a) Chinese language, mathematics, English (mastery of which allows students to continue their education and/or helps them work in an international environment); (b) politics, history, and geography (basic social sciences); (c) physics, chemistry, biology, and geography (natural sciences); (d) physical education, music, and painting (which helps both mental and physical development); and (e) Laboring skills (which helps students learn a skill or a trade).

Next, a rigorous curriculum management structure was formed. Syllabuses and teaching materials of every subject were full of ideological, scientific, and systematic contents that not only emphasized teaching children basic knowledge, but also developed their aptitude and intelligence.

As China becomes increasingly modernized, the quality of skilled labor is rising. However, the present primary and middle school curriculum has become less focused on developing much needed skilled and professional labor and this has resulted in the following problems: (a) curriculums lacking flexibility; (b) curriculum becoming unreasonable; (c) curriculum contents have become too complex; (d) the instructional objectives have been set too high; and (e) the discipline system is a little bit out of date.

In order to solve these aforementioned problems, administrative departments of education, schools, and institutes of educational research are all working hard to break away from the outdated traditional modes of thinking and completely construct scientific and modern curriculum views in order to establish a new curriculum system which can offer students a quality education.

1. Background of Curriculum Development

The People's Republic of China is a socialist country with a planned economy that is now being transformed into a market-oriented one. Although China is huge country, the country's general economic level is not high. The Chinese economy adopted a typical binary structure which is characterized by the co-existence of a backward, rural, agricultural sector with modern, urban industries. This binary structure has led to great economic and cultural disparities that have run along geographic and ethnic lines.

China has 55 different minority groups, 19 of which have a population of over one million people. More than 5000 years of civilization has seen the introduction and existence of a variety of different groups in China. China has 4 main religious groups (Buddhism, Christianity, Islamism, and Dao), and 5 main language families (Han-Tibetan, Altaic, South-Island, South-Asian, and Indo-European).

Forty years after the founding of a new China, the country's population growth has gone through two peaks: 1953-1957 and 1962-1974, where the natural growth rates were 22‰ and 25‰ respectively. The third peak will come soon. In 1997, the general population of China was around 1223.89 million and the natural growth rate was 10.42‰. It is estimated that the population of the 7-12 age group will reach around 140 million by the year 2000.

Though it was limited by the unitary planned economy in the past, Chinese education has still made great progress. At present, an integrated educational system has been established in China, which consists of preschool, primary, secondary, higher, and graduate education. In 1996, educated people in China numbered around 320 million, accounting for 26.2% of the general population.

In 1995, the 15-year-old age group received an average of 6.42 years of schooling, which then increased to 6.85 years in 1996. The number of illiterate adult in 1995 was 145 million. While the number is high, the illiteracy rate among adults had decreased from 22.1% to 16.5% from 1990 to 1995. The illiteracy rate among the 30-50 age group decreased from 9.3% to 6.14%. In 1996 there were about 730,000 schools and 194 million students in China.

The huge population, the great economic and cultural disparities that exist between regions, the low quality of human resources, and heavy pressure against education are factors that constituted the educational conditions in a rapidly transforming China. China must contend with these problems as it tries to develop its primary and middle school curriculum in the upcoming 21st century.

2 Relevant Curriculum Policies

2.1 Educational Goals and Curriculum Policies

The guiding principles in the Constitution of the P. R. C. are to help children develop moral character, intelligence, and physique, which will help them to someday become culturally and socially aware workers. The Compulsory Education Law of the P. R. C. stipulates that compulsory education must implement the educational guiding principles in the Constitution, strive to increase educational quality, develop children's moral character, intelligence and physique, etc., and lay a foundation for increasing people's quality of life. Another goal is to train qualified, talented people for socialist construction who have ideals, morality, culture, and discipline.

According to the above-mentioned educational goals, related administrative departments of education formulated the "Full-time Primary and Middle School Curriculum Plans for a 9-

year Compulsory Education" and syllabuses of 24 subjects. Both of them are integrate into "Full-time Primary and Middle School Curriculum Program for 9-year Compulsory Education", which came into effect in 1993.

The Curriculum Plans included training goals, curriculum arrangement (state-arranged curriculum, locally-arranged curriculum, curriculum schedule, and instruction), tests and examinations, and implementation requests.

2.2 Achievements and Trends of Curriculum Reforms

Since the 1980s, researchers of educational theories, teachers, and administrators have cooperated to conduct a series of curriculum experiments and reforms and made some breakthroughs: (a) changing the united curriculum system into a new one that integrated both unity and adaptability; (b) changing the unitary system of the previous, discipline-centered curriculum and putting a more activity focused curriculum into the system; (c) breaking through the limitations of compulsory subjects and offering electives; (d) getting rid of the discipline-centered curriculum and beginning to develop a more comprehensive curriculum; and (e) changing the extremely centralized management institution and building three levels of management composed of the central government, local government, and school management.

Both Shanghai City and Zhejiang Province were two important experimental areas for primary and middle school curriculum reforms. The success of those reforms has paved the way for nationwide reforms. Concerning the reforms in Shanghai, the local educational administrative departments considered the objectives of curriculum reforms to be characterized as "two changes, three breakthroughs" because of plans to (a) change the system where education was examination-oriented, with the sole focus in entering a higher school level; (b) change the need for compulsory subjects; and (c) lighten student workloads, improve instructional quality, strengthen basic knowledge, better educate students, and developing each student's character.

In the future, the most feasible reforms will be (a) to change the old unitary curriculum system and establish a new one integrating its unity into flexibility and diversity; (b) to change the unitary subjects structure, injecting activity into the curriculum system, and forming a general curriculum structure which combines subjects, activity, and morale; (c) create a more pragmatic curriculum; (d) to eliminate the need to make all subjects compulsory, instead, integrating both compulsory and optional subjects; (e) to make the curriculum more diverse; (f) to change the content of the original discipline-centered curriculum and set up new curriculum structure; (g) to change the unitary character of schools and curriculum modes into a varied one; (h) to change the curriculum so that it satisfies the needs of society; (i) to ensure that curriculum reforms are in line with evaluation reforms; and (j) to split the centralized management into three levels.

2.3 Curriculum Development

Chinese curriculum development is partially centralized. The State Education Ministry regards "one syllabus, various textbooks" as the principle of curriculum development. It is permitted for local departments of education or teachers to individually modify teaching materials to suit their own styles.

The editing process is mainly completed by a central or local curriculum development committee authorized by administrative departments of education. The curriculum development committee consists of professional editors, researchers from colleges and

universities, teachers from primary and middle schools, a few students, their parents, and people engaging in other professions. It must be examined by a central curriculum examination committee.

According to the principle of "one syllabus, various textbooks", the State Education Ministry is regularly organizing modifications of a number of teaching materials, allowing materials to be adapted to three kinds of areas with different development levels, namely average-requested teaching materials adapting to medium-developed areas, highly-requested teaching materials adapting to highly-developed areas, and low-requested teaching materials adapting to outlying and developing areas.

In regard to compulsory education, 8.5 sets of teaching materials with different styles was edited under the guidance of the syllabuses (the 0.5 set denotes the teaching materials for ungraded schools). In addition, the Chinese government also gathered specialists together to edit the unitary syllabuses for special needs children, which took in account the handicaps of these children, ignored their social backgrounds, and ethnicity.

3 Basic Curriculum Design Process

3.1 Methods of Curriculum Design

Generally speaking, the present Chinese primary and middle school curriculum is a discipline-centered one, which emphasizes more on social demands, while neglecting the children's needs; emphasizes more on a single racial experience while neglecting children's individual ones; emphasizes more on the logical system of imparting knowledge while neglecting children's psychological characteristics.

It was discovered that this kind of curriculum seriously neglected the children. Because of the unitary syllabuses and teaching materials in compulsory education, there was no chance for teachers to create curriculum. It was deemed enough for teachers to just explain teaching materials according to the single syllabus.

3.2 Structural Characteristics of Today's Curriculum

The old curriculum structure was improved by using "the Full-time Primary and Middle School Curriculum Plans for 9-Year Compulsory Education." The following are the main characteristics of the new curriculum structure: First, changing the old curriculum, oriented to unitary discipline-centered curriculum into a new one, which consists of discipline-centered curriculum and activity-centered curriculum. Second, reforming the curriculum contents based on basic knowledge and increasing appropriate contents about professional education.

There is also a need to regulate the content ratio between every subject. This includes: (a) requiring prerequisites to ensure that every student masters necessary basic knowledge about Chinese language, mathematics, foreign languages, etc.; (b) adjusting the class hour ratio between every subjects; (c) appropriately increasing the class hour of social science subjects (including ideology and moral character for primary schools, ideology and politics for secondary schools, society for primary schools, history and geography for secondary schools, and science subjects including nature for primary schools, physics, chemistry and biology for junior secondary schools); and (d) to improve such subjects as physical education and painting for primary schools and vocational skills for secondary schools.

Fourth, increasing the flexibility and diversity of the curriculum: (a) separating the curriculum into state-arranged curriculum and local-arranged curriculum, making it a more diverse one; (b) changing unitary requests for some subjects, such as foreign language,

mathematics, and so on; and (c) stipulating that there must be appropriate class hours left to arrange the instruction using native teaching materials.

3.3 Curriculum Integration

Curriculum integration is still a major problem. For example, there are too many compulsory subjects and too few electives being offered. The discipline system is also over emphasized and comprehensive and practical characteristics of curriculum are neglected. To some extent, teaching materials have little relevance in the lives of students.

Now, many local educational departments are studying the comprehensive curriculum with its science and social science subjects. Some ungraded schools in rural areas created three new comprehensive curriculums, namely (a) "art and physical education" which integrated music, physical education, and painting; (b) "life and science" which integrated nature, labor, health education, general knowledge of agriculture; and (c) "moral character and society" which integrated ideology and moral character, history and geography.

Educational experiments proved that a comprehensive curriculum can reduce the unnecessarily heavy load shouldered by teachers and students, prove beneficial for training children to problem solve, and make the 9-year compulsory education more universal.

A comprehensive curriculum is formed not by simply putting some subjects together. What is essential is the integration of various thoughts on those subjects, with the realization that integration depends mainly on breaking the limits between subjects, not on the simple combination of various subjects.

3.4 Specific Curriculum Areas

As mentioned above, Chinese primary and secondary education has been burdened by too many kinds of compulsory subjects and very few electives. With social development, many new subjects such as the disaster education, fire control, traffic safety, population, drug, health, environment, and international relations should be taught to students. However, this has brought great pressure to the present curriculum.

In 1998, the State Education Ministry stipulated that more attention must be paid training students about those various subjects. The Ministry also felt that instruction must be integrated into related subjects and related textbooks for students must not be edited.

4 Major Strategies of Curriculum Implementation

4.1 Teacher Professional Development

China requires teachers to be certified if they want to teach in the school sector. Professional teachers development is divided into two stages: pre-service and in-service training. Pre-service training is mainly implemented by regular schools, colleges and universities. The curriculum, formulated by the State Education Ministry according to different educational levels, includes: (a) basic educational theories like pedagogues, educational fundamentals, educational sociology, educational economics, educational administration and management, etc.; (b) educational methods and techniques, classroom management, educational evaluation, etc.; (c) pedagogues of subjects such as the pedagogy of mathematics and the arts; (d) basic subjects like mathematics, Chinese language, foreign language, politics, biology, physics, chemistry, geology, history, etc.; and (e) instructional practice.

As far as the in-service training is concerned, in 1996, the State Education Ministry made

a decision to establish the Institution for Continuing Teacher Education and recently addressed policies such as "Continuing Education Regulations of Primary and Middle School Teachers", "Curriculum Development Guide for Continuing Education of Primary and Middle School teachers", "Suggestions on Strengthening Professional Moral Education in the Continuing Education of Primary and Middle School Teachers" will be published in the future.

In-service training is funded by the central or local government for teachers to carry out those in-service training plans made by administrative departments of education. Governments also offer subscriptions for newspaper and books so that every teacher can study in his or her spare-time.

Governments provided opportunities for teachers to accept in-service training. They may take part in the unified entrance examination for higher level schools to acquire diplomas for higher academic degrees. Teachers may attend local teachers training programs and acquire credits. Local teachers' associations or institutes of instructional research organize teachers so they can study together and where experienced teachers can help novices. Local education shows focus on teacher training while every school's instructional research groups organize teachers for research and discussions. The government also provides teachers with appropriate books and reference materials or subscriptions to newspaper and books to improve their part-time study.

In order to help teachers catch up with new developments in the curriculum, governments must take some actions such as publishing teachers guides for the new curriculum, regularly publishing newsletters about the new curriculum to allow teachers to communicate with each other, organize teachers to accept compulsory or voluntary training, and arrange on-the-spot instructional meetings so teachers can recount their experiences.

4.2 Resource and Community Support

In order to effectively implement the new curriculum, administrative departments of education directly participate in the editing, production, and publication of textbooks. Teaching materials include necessary items such as teachers' guide books, students' guide books, tapes, CDs, wall maps, and so on. Administrative departments of education, publishing houses, educational institutes, schools, and teachers may edit some supplementary materials during curriculum implementation.

Local communities in China also participate in the development of the primary and middle school curriculum, their participation enrich students' extracurricular activities, increase their interest in study, and help students acquire some practical knowledge. For example, there are always some Children's Palaces near schools in cities where children can widen their knowledge and also acquire practical skills.

Primary and secondary education in rural areas though, was related more with local productive labor. Many schools offered courses on skills such as planting, breeding, and processing. By learning these skills, students learned how to work and improve the local economy.

4.3 Classroom Strategies

During teacher training, many tactics were used to introduce new methods. Intensive teacher training was arranged and teachers were asked to study reference materials. Workshops were organized where teachers learned about new methods and contests were held to propagate new ideas.

Presently, the debates about pedagogy focus on: (a) how to develop students' characters

and bring forth their unique abilities in order to help them study actively and happily; (b) how to teach students how to learn; (c) how to train students to think, practice new skills, and improve their communication skills; (d) how to stimulate student creativity; (e) how to improve student motivation and interest in studying; (f) how to teach individual students and meet their special needs; (g) how to design effective instruction; and (h) how to establish a system of multiple evaluation measures, etc..

4.4 School-based Student Assessment

A traditional method to evaluate student performance is the paper-pencil test. With the initiation of quality-based education, more and more methods of non-paper-pencil tests are used such as (a) observation- recording student performance by observing their ideology and moral character, experimental skills, labor skills, and other intangible characteristics; (b) interview- talking directly with students to probe each student's ideology; and (c) portfolio- collecting student work which includes papers, handicrafts, and so on, to judge performance.

There are several reasons why students need to be evaluated. For students, evaluations may be used as a diagnostic tool which will enable them to enter higher grades, receive awards for good work, etc.. For schools, it may be used as a tool to examine instructional quality, regulate instructional methods, getting higher ranks, promoting cadres, and so on. For the parents of students, it may be used as a way to monitor their child's progress, adjust their educational tactics, decide their child's professional directions, and so on.

With the launching of a quality-based education movement, the use of evaluation methods is increasing while evaluation methods have changed. In evaluating ideology and moral character, comments, behavior ranks, rewards and punishments, etc. are given to students. In order to evaluate knowledge, there is the usual hundred-mark system, places in a competition, comments, etc. At present, the State Education Ministry asked teachers to use the rank-mark system and comments in primary schools to compel student progress.

Currently, besides unit tests, middle-of-term examinations, and end-of-term examinations, there are examinations for primary and secondary school graduation, the entrance examination to high middle schools, the graduation examination of high middle schools, the entrance examination to universities, etc. These examinations are either locally unified or centrally unified, and serves as the purpose of the curriculum and for all other school work. This has caused Chinese education to stress academic knowledge and train students on how to take tests, while neglecting other aspects of student development and learning. As a result, those subjects not being taken as unified examinations were seriously ignored to the point of being deleted from the curriculum schedule.

4.5 Barriers to Curriculum Implementation

In the administrative management of education, the barriers lie in: (a) that some administrative and managerial departments of education leaders in certain areas wholeheartedly try to encourage greater numbers of students to enter higher grades; (b) administrative regulations corresponding to effective curriculum implementation lag behind reforms measures guaranteeing curriculum implementation; (c) administrative support measures relevant to effective curriculum implementation can not catch up with curriculum implementation; and (d) some leaders of administrative and managerial departments of education do not possess strong leadership abilities.

The barriers from teachers lies in: (a) teachers can not get adequate and timely training; (b) during curriculum implementation, teachers can not get timely and continuous guidance;

(c) teachers are not allowed to design instruction according to the new curriculum; and (d) only a limited number of teachers are able to teach the new curriculum.

The difficulties concerning teaching materials, reference materials and other necessary accessories lies in: (a) lack of teaching materials and reference materials; and (b) lack of necessary instructional accessories pertaining to the new curriculum. Also, community support has not been fully developed.

5 General Methods of Curriculum Monitoring and Evaluation

5.1 Processes of Curriculum Monitoring and the Mechanism and Results of Curriculum Evaluation

In brief, there are five steps in the process of curriculum monitoring. (a) Teachers need to be trained using new teaching materials, which are divided, into three levels. The first level is organized by the People's Education Press to run national workshops for instructional researchers and key teachers. The second and the third level is organized by institutes of instructional research in some provinces or cities for the arrangement of the above-mentioned key teachers to train teachers who participate in experiments; (b) Seminars need to be held in order to allow teachers to exchange experiences; (c) Magazines need to be published concerning the curriculum guide; (d) Administrative departments of education need to participate in inspections; and (e) The effectiveness of the new curricula needs to be investigated with questionnaires.

The main mechanisms of national curriculum evaluation are, (a) internal evaluation- editors of teaching materials conduct formative evaluation during the editing. The goal is to evaluate every stage of editing, and find and correct faults in each stage; and (b) external evaluation- teaching material experiments. Evaluators are taken from the ranks of teachers from the experimental schools, students and their parents, instructional researchers, leaders of administrative departments of education, specialists, etc.. The past experiments proved that curriculum evaluation can:

- provide valuable feedback information;
- give people experience organizing massive experiments of teaching materials;
- fully promote the instructional research reforms, educational thoughts, instructional contents, instructional methods, and training young teachers;
- tentatively form national evaluation programs of teaching materials;
- improve the quality of instruction and learning;
- provide information for developing new curriculum policies.

5.2 Specific Studies of Curriculum Evaluation

After 1988, in order to adapt to different schools, the People's Education Press and the Institute of Curriculum and Teaching Materials edited teaching materials of the "6-3" and "5-4" schools systems. "6.3" schools system refers to the 6-year primary schools education and 3-year junior secondary school education and "5-4" refers to 5-year primary schools education and 4-year junior secondary school education. In 1990 they were used in massive teaching material experiments. The results of the experiments showed that on the whole, new teaching materials accorded with goals of compulsory education, requests of curriculum plans and syllabuses of compulsory education enriched students and embodied the characteristics of

quality-based education. New teaching materials were deemed:

- accorded with goals of compulsory education, requests of curriculum plans and syllabuses of compulsory education, enriched the flavor of the times;
- full of ideological contents with every subject strengthening ideological education;
- attached great importance to basic knowledge and skills of each subject;
- so flexible that they take in account each student's individual needs;
- very study friendly.

However, new teaching materials also had some shortcomings. For example, there was so much to learn and not enough class hours could be devoted to studying these new subjects. New teaching materials also were not sensitive to local conditions and at times, impractical. Materials such as teachers' guides and tapes also needed to be improved.

In 1996, the Basic Education Bureau of the State Education Ministry gathered together specialists from six normal colleges and universities to edit an investigation program on the implementation of the 9-year compulsory education curriculum and talked with 15000 students, 2000 principals, teachers and other knowledgeable people from 9 provinces and cities.

The conclusion from the research was that considering how the present curriculum has been implemented, there has been a tendency to focus on just giving students basic knowledge and skills while ideology and morality, health, attitude, vocational skills, and affection, were ignored.

Compulsory education goals were set too high. Under the present education system, most students lack enough sleep and have little time to do what they like. The time they spent in the household decreased as they tried to get better grades. However, the main methods of instruction and learning focused on passive learning, not active thinking. Taking account current examination scores, some serious phenomena was found, such as frequent examinations, difficult school assignments divorced from practicality, neglecting student creativity, placing student ranks in name lists, and so on. Generally, in regards to each student's workload and school experiences, the student workload was too heavy, and a trend was found that the higher a student's grades were, the lower the degree of satisfaction each student had with school.

Conclusion

During the two decades of reform and opening China up to the world, a series of education reforms were instituted which improved the development of education. Nevertheless, the present educational system still does not fully educate students to handle the demands of modernization and social development.

The contradiction between dissemination of knowledge and improvement has not yet been solved. As far as dissemination is concerned, the national average length of school is not long enough and there is still illiteracy in China, which is a great barrier to training highly skilled workers. It is an important task for China to train a great number of people with innovative spirits and abilities. Some of them can scale new heights in science and technology while more Chinese people can develop advanced technology. Moreover, it is also necessary to train a lot of specialists who can turn advanced technology into productive forces. Only through the implementation of educational reforms can China hope to improve people's

comprehensive qualities, the essence of which can be found in curriculum reforms, teaching materials, instruction, and evaluation.

Presently, some schools emphasize more on rote memorization and student assignment loads are too heavy. All this does is harmful to the development of each student's personality and creativity. Therefore, the key task for administrative departments of education is to make a commitment to reform the old curriculum, teaching materials and use methods of evaluation to advance quality-based education.

Meanwhile, it is necessary for China to train a great number of highly capable teachers. Currently, the number of all teaching and administrative staff is around 14,500,000. Though their general quality has risen in some extent, their professional ability, morality, and academic levels are not uniform. Therefore, improving the quality of teachers is another key task facing administrative departments of education.

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Appendix A

Full-time Primary and Junior Secondary School Curriculum Schedule of the "5-3" School System for 9-Year Compulsory Education

Curriculum		Primary School					Junior Secondary School				9-year Compulsory Education		total
		1	2	3	4	5	1	2	3	4	Total class hours of primary school	Total class hours of junior secondary school	
subject	Ideology and moral character	1	1	1	1	1					170		438
	Ideology and politics						2	2	2	2		268	
	Chinese language	11	11	9	9	9	5	5	5	5	1666	670	2336
	Mathematics	5	6	6	6	6	5	4	4	4	986	570	1556
	Foreign language	I					4	4				272	272
		II					4	4	4	4		536	536
	Society			2	2	2					204		646
	History						2	3	2			238	
	Geography						3	3				204	
	Nature	1	1	2	2	2					272		772
	Physics								2	3		164	
	Chemistry								2	2		132	
	Biology						2	2	2			204	
	Physical education	2	2	3	3	3	3	3	2	2	442	336	778
	Music	3	3	2	2	2	1	1	1	1	408	134	542
	Painting	2	2	2	2	2	1	1	1	1	340	134	474
	Labor			1	1	1					102		370
	Laboring skill						2	2	2	2		268	
	Weekly class hours	25	26	28	28	28	30	30	25	22	4590	3594	8184
activity	Morning meeting (afternoon meeting)	10 minutes per day											
	Collective activity	1	1	1	1	1	1	1	1	1	170	134	304
	Physical exercise												
	Science, technology and cultural activity	3	3	3	3	3	3	3	3	3	510	402	912
	Weekly class hours of activity classes	4	4	4	4	4	4	4	4	4	680	536	1216
	Locality-arranged curriculum	2	2	2	2	2	1	1	7*	10*	340	626	966
Total of weekly class hours		31	31	34	34	34	35	35	36	36	5610	4756	10366

Note. * denotes the weekly class hours of locality-arranged curriculum of foreign language Level I. If the course of foreign language is Level II, the class hours of locality-arranged curriculum for Grades 3 and 4 of junior secondary school will be decreased by 4, namely their class hours are 3 and 6 respectively.

Appendix B

Full-time Primary and Junior Secondary School Curriculum Schedule of the "6-3" School System for 9-Year Compulsory Education.

Curriculum		Primary School						Junior Secondary School			9-year Compulsory Education		total
		1	2	3	4	5	6	1	2	3	Total class hours of primary school	Total class hours of junior secondary school	
subject	Ideology and moral character	1	1	1	1	1	1				204		404
	Ideology and politics							2	2	2		200	
	Chinese language	10	10	9	8	7	7	6	6	5	1734	568	2302
	mathematics	4	5	5	5	5	5	5	5	5	986	500	1486
	Foreign language	I					4	4			272	272	
		II					4	4	4		400	400	
	Society				2	2	2				204		608
	History							2	3	2		234	
	Geography							3	2			170	
	Nature	1	1	1	1	2	2				272		702
	Physics								2	3		164	
	Chemistry									3		96	
	Biology							3	2			170	
	Physical education	2	2	3	3	3	3	3	3	3	544	300	844
	Music	3	3	2	2	2	2	1	1	1	476	100	576
	Painting	2	2	2	2	2	2	1	1	1	408	100	508
	Labor			1	1	1	1				136		336
	Laboring skills							2	2	2		200	
	Weekly class hours	23	24	24	25	25	25	32	33	27	4964	3074	8038
activity	Morning meeting (afternoon meeting)	10 minutes per day											
	Collective activity	1	1	1	1	1	1	1	1	1	204	100	304
	Physical exercise												
	Science, technology and cultural activity	4	4	4	4	4	4	3	3	3	816	300	1116
	Weekly class hours of activity classes	5	5	5	5	5	5	4	4	4	1020	400	1420
	Locality-arranged curriculum	2	2	3	3	3	3			5*	544	160	704
Total of weekly class hours		30	31	32	33	33	33	36	37	36	6528	3634	10162

Note. * denotes the weekly class hour of locality-arranged curriculum of foreign language Level I. If the course of foreign language is Level II, the class hours of locality-arranged curriculum for Grade 3 of junior secondary school will be decreased by 4, namely its class hours totals 1.

Fiji

Ram Chandar

FII ISLANDS

SECTION A

BACKGROUND INFORMATION (FIJI ISLANDS)

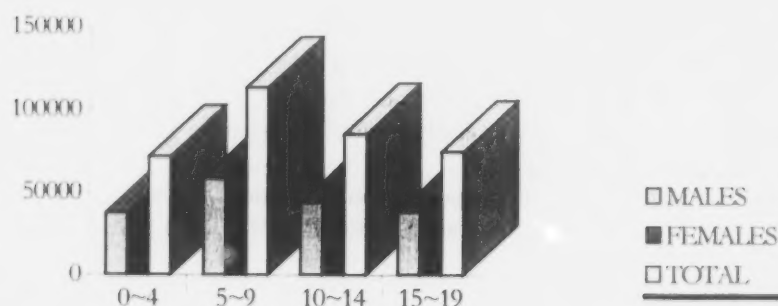
➤ GENERAL INFORMATION

- SIZE OF POPULATION

YEAR [1986-1996]

<i>TOTAL [1998]</i>	<i>ANNUAL POPULATION GROWTH RATE</i>
800,000 [approx.]	1.8%

- INDICATE THE TOTAL OF CHILDREN/YOUTH IN THE FOLLOWING AGE GROUPS, USING THE LATEST AVAILABLE DATA.

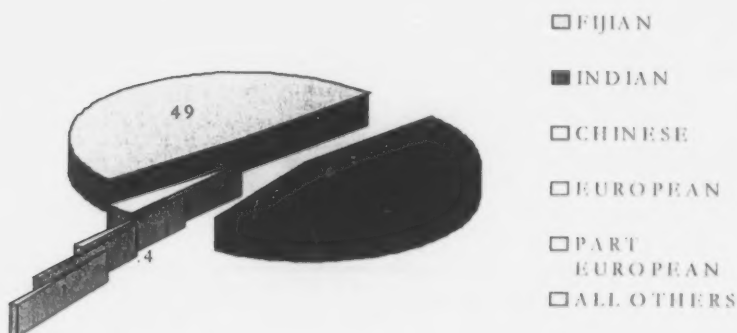


□ MALES	37312	58277	43723	38167
■ FEMALES	34331	55165	41609	36638
□ TOTAL	71643	113442	85332	74805

*YEAR 1990

- INDICATE THE MAJOR ETHNIC AND LANGUAGE GROUPS IN YOUR COUNTRY, AS A PERCENTAGE OF TOTAL POPULATION.

ETHNIC & LANGUAGE
GROUP %



- LIST THE MAJOR RELIGIOUS GROUPS IN YOUR COUNTRY.
 - Christians
 - Hindus
 - Muslims.
- STATE THE ANNUAL PUBLIC EXPENDITURE ON EDUCATION (TOTAL AND AS PERCENTAGE OF GNP [IN US\$]).

[1997]	Total National Budget	F\$1,036,349,100
	Expenditure on Education	F\$167,960,000
[1998]	Expenditure on Education	F\$152,218,300
	Total as % of GDP [1997]	4.5%

- LANGUAGE.
 - WHAT IS THE NATIONAL AND/OR OFFICIAL LANGUAGE(S) OF YOUR COUNTRY?
English
 - IF YOUR COUNTRY HAS SEVERAL OFFICIAL LANGUAGES, HOW IS THE MATTER ADDRESSED IN THE SCHOOL CURRICULUM? FOR EXAMPLE, WHAT IS THE LANGUAGE OR LANGUAGES OF INSTRUCTIONS, AND WHICH OF THIS OFFICIAL LANGUAGE(S) ARE TAUGHT AT WHAT LEVELS?
English is the language of instruction and is taught from Class 1 to Form 7.

➤ THE EDUCATION SYSTEM

• **STRUCTURE-1997**

LEVEL	DURATION IN YEARS	AGE RANGE TAUGHT	POPULATION			PERCENTAGE OF AGE GROUP ATTENDING SCHOOL			COMPULSORY OR NON- COMPULSORY
			MALES	FEMALES	TOTAL	MALES	FEMALES	TOTAL	
PRE-SCHOOL	1	4-5 YEARS	3748	3668	7416	50.5	49.5	70	NON- COMPULSORY
ELEMENTARY OR PRIMARY SCHOOL	8	6-13 YEARS	73765	69016	142781	51.6	48.4	95	COMPULSORY
LOWER SECONDARY	2	14-15 YEARS	N/A	N/A	41935			N/A	COMPULSORY
UPPER SECONDARY	3	16-18 YEARS	34323	35575	70098	49.2	50.8	90	NON- COMPULSORY

• **CLASS SIZE**

LEVEL	AVERAGE CLASS SIZE
ELEMENTARY/PRIMARY	45
LOWER SECONDARY	35
UPPER SECONDARY	30

• TEACHERS

<i>LEVEL</i>	<i>NUMBER OF CLASSROOM TEACHERS</i>			<i>TEACHER : STUDENT RATIO</i>
	<i>Males</i>	<i>Females</i>	<i>Total</i>	
Elementary/primary	2042	2969	5011	1 : 28.4
Lower/Upper secondary	1880	1639	3519	1 : 19.9

• NUMBER OF SCHOOLS

<i>LEVEL</i>	<i>GOVERNMENT</i>	<i>PRIVATE</i>	<i>OTHER (PLEASE SPECIFY)</i>	<i>TOTAL</i>
ELEMENTARY/ PRIMARY	2	4	692 - RELIGIOUS COMMITTEE	698
SECONDARY	12	1	139 - COMMITTEE	152
GENERAL VOCATIONAL	36	-	2 - RELIGIOUS	38
TEACHER TRAINING	2	-	2 - RELIGIOUS	4
OTHER (DISABLED CHILDREN'S)	-	14	2 - RELIGIOUS	16
TOTAL	52	19	837	908

• SPECIFIC SCHOOL INFORMATION

	<i>PRIMARY</i>	<i>SECONDARY</i>	
		<i>LOWER</i>	<i>UPPER</i>
NUMBER OF SCHOOL DAYS PER YEAR OF STUDENTS	205	205	205
DIVISION OF SCHOOL YEAR	TERMS 1 - 3	TERMS 1 - 3	TERMS 1 - 3
NUMBER OF INSTRUCTION DAYS PER WEEK	5	5	5
TEACHERS' AVERAGE NUMBER OF CLASS CONTACT HOURS PER WEEK	35	35	35
TIME DURATION/TEACHING PERIOD (IN MINUTES)	30 - 40	40-45	40-45

SECTION B

CURRICULUM POLICIES

➤ BACKGROUND

- Social, economic, political, and cultural contexts of curriculum policies.
 - To meet the social and economic demand the Ministry of Education has introduced compulsory education for classes 1 to Form 4 since 1997.
 - Another key component of policies and strategies in education and training is the development of vocational and technical education to cater for the market demand and to provide students with relevant knowledge and skills to prepare them for the world of work and self-employment.
 - To increase in the participation and improvement in the performance of indigenous Fijian students whilst at the same time the encouragement of a greater understanding of different cultures to promote national unity. This is reflected in the teaching of cross-culture and conversational languages in the primary schools since 1994.
- Education goals/aims for the compulsory education sector.
 - To increase access to education especially for the urban and rural poor children.
 - Ensure the education system is sensitive to the changing needs of the community and the economy.
 - Retain the strengths inherent in a high level of community participation in the education system while improving efficiency through more effective planning of resource allocation.
 - Improve quality of education by resourcing schools with qualified teachers and teaching materials.
 - Assess and revise the school curriculum for the changing needs of the nation, drawing to a greater extent on private sector input in determining the range, structure and content of the curriculum.
- Regulations governing curriculum policies.
 - The curriculum policies are all centralized. Government through parliament makes all regulations and policies that govern the school system. All curriculum documents as related to the national framework derived from the Ministry of Education mission and corporate objectives. All courses/programmes, time allocation for subjects, teacher learning activities, textbooks, assessment and examination are centralized through the Curriculum Development Unit as the major arm of Ministry of Education.

➤ CURRICULUM CHANGE

- Some of the major changes in the national school curriculum over the past 5 to 10 years are as follows:-
 - Compulsory education for Classes 1 to Form 4 has been introduced since 1997 to ensure that all school age children attend school. Compulsory schooling age is from 6 to 15 years.
 - Curriculum is designed to provide a balanced programme of both academic and practical courses for the full development of Fiji's youth in a rapidly changing society.
 - Introduction of teaching of conversational cross culture languages to different ethnic groups in Class 4 in 1994 to encourage greater understanding of different cultures and to promote national unity.
 - Introduction of teaching vernacular, that is, Fijian, Hindi, Urdu languages as examinable subjects in the national examination up to Form 7 level.
 - Introduction to teaching computer technology as an examinable option subject at the Fiji School Leaving Certificate and Fiji Seventh Form Examinations
 - Greater emphasis has been put in the teaching of Family Life Education in both primary and secondary schools. Through integration approach Moral Values Education, Aids Education and Environmental Education has been introduced in most subject areas.
 - Currently the primary curriculum is undergoing a revision work. This revision is anticipated to be completed by the year 2000. Ministry is also planning to review the secondary curriculum for the changing needs of the nation, drawing to a greater extent on private sector input in determining the range, structure, and content of the curriculum. Greater emphasis and consideration has been prioritized on the development of information technology, communication and cultural identity.

➤ CURRICULUM DEVELOPMENT PROCESS

- Degree of centralization of curriculum development.

All the ministry's policies with regards to teaching/learning resources, curriculum and examination are controlled centrally by the Curriculum Development Unit. However, the districts through the divisional education officers, principal and head teachers assist in the implementation of the education policies.

- Initiation of curriculum development.

Government is responsible to initiate curriculum development. However, there are various agencies that assist in the development process of the curriculum. These agencies are as follows:-

- Local governments -: their roles are to look after the general welfare of the children e.g. health, transport, basic needs etc...
- Teacher unions -: through their representatives, help in the workgroup committee in designing and reviewing the curriculum.
- Research institutions -: assist in research, feedback and new developments e.g. University of the South Pacific, teachers colleges etc...
- Employers -: assist in formulating curriculum skills required at workplaces.
- Private institutions -: are members of the workgroup committee whose roles are to advise on curriculum review work.
- Parents, teachers and non-government agencies -: assist in curriculum workgroup committee.
- Other government departments and school communities -: also play an integral part in developing curriculum.

Before the curriculum is revised the views of teachers are taken into account through a questionnaire sent to all schools. Views of teachers, who are also parents, are accommodated in decision making process. Other professional bodies like the University of the South Pacific and Fiji Institute of Technology and the teachers colleges' are members of workgroup committee who assist in curriculum review and design work.

Curriculum approaches to promote unity and cultural diversity are reflected by having a multi-ethnic, multi-religious and multicultural group of members who are

part of the Curriculum Workgroup Committee. Also the unity/cultural diversity is maintained by offering Cross Cultural Conversational language and inclusion of culture in the teaching of English, Fijian, Urdu, Hindi and Rotuman languages from Class 1 to Form 7.

- Provision of children with special needs.
 - Yes, provision is made for children with special needs such as physical disability. (Refer to pg. 13-14 of MOEd Annual Report 1997)
 - For socio-economic background children, the curriculum has provision through the support services like the tuition fee free assistance and the remission of fees scheme for secondary as well as the increased per capita grants for the primary pupils.

SECTION C

CURRICULUM DESIGN

➤ CURRICULUM ORGANIZATION

- Basic approach to curriculum design is content and outcome based.
- Curriculum is mainly designed to be implemented by teachers to acquire knowledge, skills, attitudes and competency required by students at different levels of the school system.
- Recommended range of periods per week are as follows –:

SUBJECT	FORM 1	FORM 2	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7
English	8-9	8-9	8-9	8-9	8-9	8-10	8-10
Mathematics	6-7	6-7	6-7	6-7	6-7	6-7	6-7
Basic Science	4-6	4-6	5-7	5-7			
Economics			3-5	3-5	6-7	6-7	6-7
Accounting			3-5	3-5	5-7	6-7	6-7
Chemistry					6-7	6-7	7-8
Physics					6-7	6-7	7-8
Biology					6-7	6-7	7-8
Social Science	5-7	5-7	5-7	5-7			
Geography					6-7	6-7	6-7
History					6-7	6-7	6-7
Hindi	2-4	2-4	3-4	3-4	4-5	4-5	6-7
Urdu	2-4	2-4	3-4	3-4	4-5	4-5	6-7
Fijian	2-4	2-4	3-4	3-4	4-5	4-5	6-7
French			3-4	3-4	5-7	6-7	
Physical education	2-3	2-3	2-3	2-3	1-2	1-2	
Music	1-2	1-2	1-2	1-2			
Art & craft	2-3	2-3	2-3	2-3			
Agricultural Science	2-4	2-4	5-7	5-7	6	6	6
Home Economics	2-4	2-4	4-5	4-5	6-7	7-8	
Clothing & textiles					7-9	7-9	7-9
Food & nutrition					7-9	7-9	7-9
Woodwork	2-4	2-4	5	5			
Engineering Technology					6-7	6-7	7-8
Technical	2-4	2-4	5	5	6-7	6-7	7-8

<i>SUBJECT</i>	<i>FORM 1</i>	<i>FORM 2</i>	<i>FORM 3</i>	<i>FORM 4</i>	<i>FORM 5</i>	<i>FORM 6</i>	<i>FORM 7</i>
Drawing							
Wood Technology					6-7	6-7	7-8
Metalwork	2-4	2-4	5	5			

- CURRICULUM INTEGRATION

- The curriculum integration is seen as the incorporation of key aspects into the prescribed curriculum. For example, issues relating to Environment Studies are taught in many subject areas such as, English, Social Science, Basic Science, Biology, Math's, Chemistry, Economics etc... Initiatives are taken to use integration approach across the curriculum in different related subject areas.

- SPECIFIC CURRICULUM AREAS

<i>THEMES/AREAS</i>	<i>HOW YOUR CURRICULUM DEALS WITH THEMES/AREAS</i>	<i>LEVEL OF SCHOOLING</i>
Values/international understanding [e.g. moral/ethical issues etc...]	As a separate optional subject. Also as an integrated area.	From classes 1-6 (integrated approach) From classes 7-8 (as a subject) From forms 3-7 (optional subject)
Education for the world of work	As an integrated area. As a vocational subject.	Forms 3-7 and in General Vocational schools.
Foreign languages	English – as a compulsory subject taken by all. French – as a separate optional.	Vernacular (Fijian, Hindi, Urdu, taken in class 1 to form 7 as an optional subject. Rotuman is taken in class 1-6 as an optional subject.
Computer /information technology	As a separate optional subject.	Forms 5-7
Health education	As a separate subject in primary schools. As an integrated area in secondary schools.	Classes 1-8 Forms 3-7
Environmental education	As an integrated area.	Classes 1-8 Forms 3-7
Others – cross cultural education	As an integrated area.	Classes 4-8 Forms 3-7

- CURRICULUM COVERAGE.

Issues Relating To Curriculum Coverage :-

The curriculum has a very wide coverage. It is broad-based curriculum, which introduces general education up till Year 10 or Form 4 level. Specialization begins in upper secondary, that is, Years 11-13. Curriculum is designed to enable the students to develop the knowledge, skills and attitudes to identify and attain their career objectives and ensure flexible pathways for further education, training and world of work.

SECTION D

CURRICULUM IMPLEMENTATION

➤ TEACHER PROFESSIONAL DEVELOPMENT

- Pre-service teacher development
- Yes, Fiji requires a pre-service teacher education qualification.
- Yes, Fiji has a prescribed national curriculum/guidelines/framework, for pre-service teacher education.
- Fiji's programme for pre-service teacher development.

<i>LEVEL OF TEACHER</i>	<i>TITLE/LENGTH OF PROGRAMME</i>	<i>TYPE OF INSTITUTION</i>	<i>MINIMUM ENTRY REQUIREMENT</i>
Primary	Diploma in primary education [2 years]	Primary Teachers College [LTC]	Pass in the Fiji School Leaving Certificate Examinations
Lower secondary	Diploma in education [2 years]	Fiji College of Advanced Education [Tertiary]	Pass in the Fiji Seventh Form Examinations
Upper secondary	The university degree (BED or BA PGCED) [3-4 YEARS]	University of the South Pacific	Pass in the Fiji Seventh Form Examinations

*See pg. 20-21 ~ F.C.A.E. handbook.

- Pre-service teacher education for Diploma in Education was established in 1992 to readdress a critical shortage of trained junior secondary level teachers. This gave birth to the Fiji College of Advanced Education. Since 1992 to date this college offers Diploma in Education in these areas -:
 - Accounting/Economics
 - Agricultural science
 - English/Social Science
 - Home Economics
 - Industrial Arts
 - Math's/Basic Science

Since the curriculum for this institution was recently developed it is still undergoing monitoring and evaluation process.

- In-service teacher development programmes.
 - In-service professional development for teachers is not compulsory.
 - Yes, there is financial support for teachers for their in-service professional development. Government pays for this programme. In 1997-98 Government, through the accelerated mode of Secondary Teacher Training Courses (STTC) has trained 300 plus teachers who are graduates but lack teacher training qualification. This in-service Secondary Teacher Training Courses (STTC) was also carried out by the Fiji College of Advanced Education. This course was conducted through distance education mode and during the school vacation.
 - In Fiji, teachers improve their practice by these methods -:
 - Short-term refresher courses conducted by Curriculum Development Unit.
 - Secondary Teacher Training Courses (STTC) in-service programme.
 - Part time extension courses through University of the South Pacific
 - Teachers association meetings
 - The motivating factors and incentives for the teachers participating in in-service training are for 3 main reasons -:
 - For salary increment
 - For promotion purposes
 - For professional enrichment

- Strategies used to upgrade teachers are :-
 - Short-term refresher courses (2-3 days) conducted by Curriculum Development Officers.
 - Voluntary courses conducted during unofficial hours.
 - Courses mounted by teacher unions and association.
 - Through school visitation for advisory and approval purposes.
 - Through school-based in-service courses conducted by school principals and subject teacher association
 - Teacher guides and pupils books published by the CDU

➤ RESOURCE SUPPORT

- In Fiji the following ways are used for supply of textbooks and learning resources :-
 - For primary school – classes 1–8 teachers' guides in all subjects are prepared by the officers at the Curriculum Development Unit and sent to schools free of charge. The pupils' books in most subjects are written by CDU Workgroup, produced by Education Resource Centre [Government] and distributed to schools at minimum cost. Pupils' books in other subject areas are written by local authors and are recommended by ministry official for use in schools.
 - For the new revised curriculum, Pupils' books and Teacher's Guides for subjects taken in classes 7 and 8 are written by selected Workgroup and produced through Book Provision Fund and distributed to schools from Education Resource Center, [ERC].
 - Procurement of pupil's books in most subjects in the primary schools is done by private booksellers. Students pay for these books.
 - In the lower secondary schools pupil's texts are selected by the government [CDU] and recommended for use in schools. These books are purchased by students from the Commercial book sellers. However, the teachers guides in all the compulsory subjects: i.e. – English, Basic Science, Social Science and Mathematics are written, produced and distributed to schools through ERC.
 - The Government Printer produces some textbooks for pupils. Schools purchase these books from the government supplies.
 - In the upper secondary schools the students purchase all books from the commercial booksellers. These books are either written locally or are published in overseas countries. The official of the Ministry of Education does the selection of these books.

- Besides textbooks, additional teaching and learning resources such as teacher's guides, video tapes, audio visual materials, radio programs, sample papers and in – service course materials are also produced by the CDU and sent to schools.
- Supplementary materials in form of textbooks in most subjects are written by overseas authors and some local publishers. Ministry of Education will recommend or prescribe these titles to be used in the school system. These supplementary materials will be revised, selected and recommended to schools through the revised text book lists each year. Most of these titles will be sold in the private bookshops.
- As stated in D – 21 the cost of books in the primary schools are the shared venture. Government pays for the teacher's guides while parents buy pupil's books from either the government supplies, ERC or from the Commercial bookshops. However, in the secondary schools the parents buy most if not all textbooks. Some schools have a book scheme system where the schools purchase all the required texts and issues them to students on a loan basis.

➤ COMMUNITY SUPPORT

- Community support in Fiji to a large extent is very great. In fact most schools are owned by religious organizations. The committee and management of these schools, support the schools by providing school buildings, playing grounds, other facilities and pay for non-teaching staffs. As far as curriculum implementation is concerned, members of NGO's, religious bodies, parents as teachers and other community leaders are involved in curriculum workgroup committees who assist in reviewing, planning and designing curriculum as stated in the broad policies of the MOE frame work. Though curriculum is centralized the process of implementing the curriculum involves members from the cross section of the community.

➤ CLASSROOM STRATEGIES

- Strategies employed in Fiji to introduce teachers to new teaching approaches are :
 - Before any new curriculum is implemented the teachers have their input on them. Their views and ideas are considered.
 - New curriculum before nationally implemented, is trialled in the pilot schools. Teachers' recommendations are taken in to account.
 - Teachers are given in – service courses on these new materials, teaching methods, resources, evaluation techniques and time allocation before they actually teach these new materials.
 - Follow up work is done through curriculum development officers for advisory and monitoring work.

- Ministry of Education [CDU] prepares sample exam papers for trialling and seeking views from classroom teachers before the national exams are made on these new materials.
- Teaching methods :-
 - Most teaching methods are child-centered learning.
 - Most teaching methods are moving away from traditional to contemporary.
 - Focus on activity-oriented learning, that is, problem-solving learning is highly emphasized.
 - Special emphasis is placed on reading, listening and writing skills in teaching of vernacular.
 - Emphasis is placed on analytical thinking and life long learning and cross curriculum teaching.
 - Greater emphasis is also placed on teaching of literacy and numeric skills at all levels.

➤ SCHOOL BASED STUDENT ASSESSMENT

- In the upper secondary schools, internal assessments are done through project work. Internal assessments are also carried out in technical and vocational subjects. Besides these, schools also have mid-year and annual school based examinations. Some schools have term tests.
- In Fiji the main purpose for assessment at the school level are :
 - Reporting to parents about their children's performance
 - For promotion to next grade
 - To prepare students for the national external exams
 - Also a feedback devise for all administrators on the teachers performance
- In Fiji, student's performance is rated in percentage for the national external exams and also school-based assessment.
- Yes, Fiji has 5 external examinations. These are as follows:

<i>LEVELS</i>	<i>NAME OF EXAMINATION</i>
1. Class 6 [Year 6]	Fiji Intermediate Examination
2. Class 8 [Year 8]	Fiji Eighth Year Examination
3. Form 4 [Year 10]	Fiji Junior Certificate Examination
4. Form 6 [Year 12]	Fiji School Leaving Examination
5. Form 7 [Year 13]	Fiji Seventh Form Examination

➤ BARRIERS AND CONSTRAINTS TO EFFECTIVE CURRICULUM IMPLEMENTATION

- Difficulties/barriers as constraints to effective curriculum implementation in Fiji.
 - Curriculum is very academic-oriented.
 - Instructional materials in forms of visual aids, use of overhead projectors etc are inadequate.
 - Large class size in urban areas cause difficulties in marking pupil's laboratory work, remedial exercises and projects.
 - Lack of learning/teaching facilities [e.g. good library, laboratories, audio/visual rooms, mini theatres, science chemicals and equipment, teachers prep rooms, conference rooms for distance learning, counseling room etc.
 - English as a language of instruction is a second language for all students. This does not allow students to express their views analytically.
 - Fiji has experienced a lot of brain drain in terms of qualified and trained teachers who have migrated overseas.
 - Re-employing retired teachers who are not very efficient and productive.
 - Students' attitude towards learning and schooling is very negative. Most students get discouraged because of competition in schools and fear that they will not be employed.
 - Lack of parental support because both parents, in some cases, are bread earners and spend very little time with their children.

SECTION E

CURRICULUM MONITORING AND EVALUATION

➤ MONITORING AND EVALUATION

- Monitoring of curriculum implementation is done through national examination results. There are 5 different national exams conducted every year at 5 different levels. The analysis of these exam results gives indication for the area of curriculum that need to be reviewed. Monitoring is also done through school visitation and in-service courses.

➤ CURRICULUM EVALUATION

- Mechanisms/major tools used in Fiji for curriculum evaluation are :-
 - Analysis of national exam results at all levels and in all subjects.
 - Review of curriculum at the end of every 5 years.
 - National Curriculum Workgroup are formed in each subject area and they conduct a survey to schools. A questionnaire is sent for feedback from teachers in various subjects that need review. This is done inline with the government policies and statements with regard to changes, needs, and demand of the community.
 - The workgroup committee identifies the area of curriculum that needs reviewing and consults them to Ministry of Education for assistance both in terms of funding and technical assistance.
 - With the help of experts and the national committee the draft is formulated and sent to the pilot schools for trialling, at least for 1-year period.
 - After the trialling is completed the suggestions and recommendations from the pilot schools are taken into consideration before final draft is prepared.
 - The working committee is made up of experienced teachers, Teachers Union representatives, Employers representatives, other tertiary representatives like University of the South Pacific, Fiji Institute of Technology, Fiji College of Advanced Education, Lautoka Teachers College, etc, public and private firms and companies, NGO, parents and other related ministries. Participatory approach is used to have curriculum relevancy and appropriateness.
 - Approval is sought from the permanent secretary before the curriculum is nationally implemented. Once approval is given then the Ministry of Education – through ERC prints the curriculum materials and distributes them to all schools.
 - Curriculum is then monitored through schools visits.

France

Thierry Malan

Section A: Background Information

The purpose of this section of the questionnaire is to collect general information about your country and its education system. Please provide the following information on your country, using 1998 figures or else those that are most recently available (please indicate year).

A-1. General information**A-1.1 Size of population**

Year (1997)

Total	Annual population growth rate
58,5 millions	0,3 %

A-1.2 Indicate the total number of children/youth in the following age groups, using the latest available data.

Year (1996-97)

Age Group	Males	Females	Total
0-4yrs			2847200
5 - 9yrs			3812400
10 - 14yrs			3862500
15 - 19yrs			3913000

A-1.3 Indicate the major ethnic and language groups in your country, as a percentage of total population.

Ethnic group	%
N/A	

Language group	%
French	100
regional languages can be taught as options	

A-1.4 List the major religious groups in your country

Catholic, Protestant, Moslem, Jewish

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$US).

- State expenditure in education 360 billions FF. (66 billions US \$), including Ministry of education : 328 billions FF (60 billions US \$)
- Local authorities 129 billions FF (24 billions US \$).
- Total public expenditure 489 billions FF (89 billions US \$)

MOE/GNP (8137 billions FF = 1480 billions US \$) 3,96 %

Public expenditure in education/GNP 6%

MOE/Government expenditures 21 %

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

French

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language(s) are taught and at what levels?

French is the only official language ; regional languages can be taught as options

A-2. The Educational system

A-2.1 Structure

year (1997)

Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non- Compulsory
			Males	Females	Total	Males	Females	Total	
Pre-school	4	2-5	107657 4	102612 5	210276 9	%	%	2 years old: 34,7 % 3: 100 % 4: 100 % 5: 99,4 %	no
Elementary or Primary	5	5/5-10/11			393240 0	%	%	%	yes
Lower Secondary	4	11-15/16	162121 2	156514 5	318635 7	%	%	%	yes
Upper Secondary	3	16-18	106096 7	113741 1	219837 8	%	%	%	no

If possible, attach a diagram of the school educational system in your country.

A-2.2 Class size

Level	Average class size
Elementary/Primary	Public 23.4
	Private 24.1
Lower Secondary	Public 24.3

	Private 24.6
Upper Secondary	Public 29.3 Private 25.6

A-2.3 teachers

Level	Number of Classroom teachers			Teacher:Student ratio
	Males	Females	Total	
Elementary/Primary	23 %	public 77 % private 91.5 %	public 314787 private 42795	18.8
Lower Secondary		public 63 % private 69 %	public 184438 private 45978	12.5
Upper Secondary		public : 46 % LP, 51.7 % LEGT/ private 62.4 %	public 191534 private 46209	12.5

A-2.4 Number of Schools

Level	Government	Private	Other - please specify	Total
Pre-school	18460	300		18760
Elementary/Primary	34680	5485		40165
Lower Secondary	4942	1789		6731
Upper Secondary	- General	1439	1146	2585
	- Vocational	1111	655	1766
	- Specialized			
	- Others (please specify)			
	- Total	7492	3590	11082

A-2.5 Specific School Information:

	Primary	Secondary	
		Lower	Upper
Number of school days per year for students	180	180	180
Division of school year e.g. quarter, semester	quarter	quarter	quarter
Number of instruction days per week	5 or 6*	5 or 6***	5 or 6***
Teachers' average number of class contact hours per week	26	17.9	17.9
Time duration per teaching period (in minutes)	50**	55	55

* Primary education : 9 half-days ; Wednesday and Saturday afternoons are free. Option to organize a 4 days week with a compensation by reducing the vacation duration (20 % of the pupils in 1994/95), (or to organize a week with one Saturday free out of three)

Extra sports and artistic and cultural activities are frequently offered in addition to the 26 hours of teaching. These extracurricular activities are organised by local organisations or associations.

** at the teachers' initiative

*** Secondary education : 9 to 10 half-days ;

A-3. Any other relevant background information

Please provide here any other background information that will assist in the interpretation of your country response.

Approximately 17% of pupils from nursery to upper secondary level currently attend private schools. Families pay school fees which vary from school to school. The majority of private education institutions have signed a contract with the State : this provides them with financial support, including mainly the cost of teachers' salaries. Institutions under contract must adhere to the regulations, timetables and curricula applied in public education. The majority of private institutions are denominational - mainly Catholic - .

Section B: Curriculum policies

During the last decade various efforts have been made in each country to revamp their education systems to bring them into line with social, economic, political and cultural change in the country. These educational changes are reflected in national educational policies and the curricula framework. The main purpose of this section of the questionnaire is to obtain information on this dimension and on the process of curriculum development and change in your country.

B-1. Background

B-1.1 In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.

Each period has its own characteristic *hierarchy of subjects* inside the educational system. In France the former predominance of Latin and the humanities has been replaced by that of mathematics as a means of selecting the best pupils. Misgivings are frequently expressed over this hegemony, for it also extends to types of training in which mathematics is not so much an instrument of education as a means of selection, and thereby tends to distort pupils' motives when choosing their specialism. Attempts to reduce this dominant role of mathematics are being made.

Changes in the curriculum occur under pressure of social/economic/political/cultural new emphasis :

- as regards the modernization of industry and the economy, through the development of technology as a subject of general education, through the diversification and promotion of technical training, by increasing the proportion of time and resources devoted to scientific and technological education relative to the arts, through the growing importance of information and communication technology at all levels;
- as regards increasing the competitiveness of the economy and its ability to export, through developing the teaching of modern languages and management;
- as regards strengthening the sense of national identity, through teaching of the native language, history and civics;
- as regards securing active involvement by citizens in the processes of economic and social change, through stressing economics and the social sciences, and creating a new subject from civics, economics, politics and law ;
- as regards the right to be different, through the teaching of regional languages and cultures.

These different influences operate in various and diffuse manners. The choices made between

these different subjects end up by being expressed in the timetable and in decisions to recruit the appropriate teachers.

In reforms of the technical and vocational training system, there are two complementary logics at work: there is a logic specific to the school, and a logic specific to production. Debates reflect the diversity of outlooks to be found in the circles concerned.

The representatives of the school system are concerned to maintain adequate general educational standards in order to achieve vocational training objectives, such standards being regarded as underwriting all the other objectives of the educational system.

Representatives of the different occupations concerned are keen on adaptation of degrees to their needs and quick adaptability of degree-holders to the labour place and technology changes. They express their views via consultative committees on course design and exam syllabus. They also play a part through the provision of funds for certain establishments, via continuing training contracts for the organization of training courses for their employees, the payment of para fiscal levies, such as the continuing training and apprenticeship taxes, and through the provision of equipment.

B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

The framework law on education 89-486 of 10 July 1989 sets as its objective "to educate an entire age group to at least the level of the vocational aptitude certificate (CAP) or vocational studies certificate (BEP) and 80% of the group to Baccalaureate level within ten years".

The decree 90-788 of 6 September 1990 concerning the organization and operation of nursery and primary schools stipulates that the general objective of nursery education is to develop the children's full potential in order to permit them to shape their own personality and to give them the best possible chance to succeed in school and life by preparing them for further learning.

The five-year law 93-1313 concerning work, employment, and vocational training recognises the particular responsibility of national education to assure integration into working life, and establishes the principle that "every young person must be given the opportunity to take up vocational training before he or she leaves the education system, regardless of the level of education he or she has completed".

B-1.3 What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

Several ministerial regulations, taken about all these issues for implementation of the above quoted laws and decrees, are, in all their broad lines, mandatory for all concerned schools.

B-2. Curriculum change

B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.

Pre-school

Development of pre-school has been a priority because of social demand and evidence of correlations between duration of pre-school and achievement in primary and then secondary education. In pre-schools (« nursery school »), the children are divided by age into three sections: "lower", "middle" and "upper". An educational programme was introduced from the 1995 school year. The main educational activities contribute to the children's general development and prepare them for primary school (through development of the child's sensitivity, imagination and creative skills).

Primary education

Primary school includes five classes, divided into two cycles from 1995 : the basic learning cycle which begins in the upper section of nursery school and continues in the first two years of primary school (cours préparatoire, CP, and the first year of cours élémentaire, CE 1); and the consolidation cycle which covers the final three years (CE2, CM1 and CM2) before admission to the lower secondary school (college).

New national curricula and new timetables taking account of the organization of school work into cycles were adopted in the year 1995. These curricula, simplified and re-focused on the basic learning skills, stress the acquisition of languages, French, mathematics, basic notions of civic education, physical and artistic expression, as well as « discovery of the world ». The consolidation cycle is a continuation and introduces the first concepts and techniques needed for subjects studied in the college

Lower secondary schools

From the year 1996 a new organisation encouraged differing educational approaches to be

adopted within the same college. The objectives of junior high schools are to give all pupils a general education and common culture enabling them to master fundamental skills and knowledge, and to prepare them for orientation after the 9th class in senior high schools and their diversified fields of studies.

The four years of college are divided into three cycles : the sixth class (first year of the college) is a "cycle for observation and adaptation to secondary education". It has to facilitate transition between primary school and college. It consolidates knowledge gained at primary school and initiates pupils into subjects and methods required in secondary education . A "central cycle" covers the 7th and 8th classes. The last class (9th) of junior high schools is an "orientation cycle", preparing pupils to choices for further studies in general, technological or vocational senior high schools.

B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for curriculum development in the next five to ten years, such as: globalisation; information technology; communication; and national/cultural identity?

More coherence will be looked for between all the subject-matters, through regrouping and restructuration by « subjects poles ». In order to achieve this and reduce overload, the fundamentals of each basic subjects should be better identified and clearly brought through programmes and textbooks. Priority is to be given to information and communication technologies, foreign languages, and an integrated study field « civics, economics, politics, law ». Attempts are to be made to develop science teaching through more experimental and "hands on" pedagogy, to incite more pupils to choose scientific streams, and to reduce the dominant role of mathematics in the orientation of pupils.

A maximum time-load will be given in all classes : 26 hours in lower secondary (28 maximum with options), 26 hours in general upper secondary (30 maximum with options), 28 hours in vocational upper secondary (32 maximum with options).

B-3. Curriculum development processes

B-3.1 Is your country's system of curriculum development centralized, partially centralized or decentralized? Please explain your answer.

Curriculum development is formally centralized. This basic issue has not been decentralized by the decentralisation laws of 1983. A long elaboration process includes proposals and discussions by a National Curriculum Council, concertation with teachers, design by the primary and secondary schools branches in the MOE, final advice by the higher council for

education (conseil supérieur de l'éducation). New programmes and programmes adaptations are published in the official journal of the ministry of education, which is distributed in all services and schools. Publishers prepare new textbooks on these basis.

B-3.2 Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-governmental agencies, private companies, etc.).

A feeling for need of transversal thinking in establishing/reforming the curriculum leads periodically to creation/consultation of commissions on curriculum reforms (1985, 1989, 1996, 1997). National and regional meetings are organised on this basis. They make public reports, prior to decisions by MOE.

In the year 1989 a National Curriculum Council (Conseil national des programmes - CNP) was created. It is composed of 22 members chosen by the Minister (the president is chosen by the Minister among the 22 members) for their knowledge and skill. Joint Technical Committees (groupes techniques disciplinaires - GTD -), composed of about ten experts by subject-matters, prepare curriculum changes and reform projects. The CNP is in charge of formulating recommendations for the elaboration of programmes, the general conception of the curriculum and its adaptation to knowledge evolution. It must prevent too frequent revisions which are felt disturbing by families and teachers, and foresee that revisions are allowed sufficient preparation time (a 15 months delay between changes and their implementation in the class-rooms, and availability of new textbooks). It has to consider necessary transversal relationships, horizontal coherence (for each level) between subject-matters, and vertical coherence over the school years for each subject-matter.

Up till 1989 the pedagogic general inspectorate (inspection générale de l'Education nationale - IGEN-) played a dominant role in establishing and modifying the curriculum. The inspectors general are members of groups covering all subject-matters. Since the creation of the CNP, the IGEN no longer had exclusive responsibility for the detailed drawing up of syllabuses.

The « Fauroux report » on school (1996) stressed that changes in general objectives should be the responsibility of independent commissions with educators, researchers, parents, mature students ; changes in contents and allocation of hours should come at a second stage. It proposed that an approval by the CNP should be required before any new (or change in the) curriculum, and that its composition should include non-teacher experts.

Private textbooks publishers play also an important role (and their textbooks' authors who are often general or regional inspectors) since the curriculum is better made available to the teachers (and known by them) through the choice and daily use of textbooks rather than through consultation of official publications.

B-3.3 In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc.) accommodated in the decision

making processes? Please give some recent specific examples.

Several groups and lobbies interfere in the process :

Any debate over changes in the school curriculum, in the respective importance of the different subjects, updating of course content, the introduction or elimination of certain subjects, changes in the timetable, or changing compulsory subjects into optional ones, arouses debates between representatives (associations) of the different subjects, because of implications of curriculum and time allocation choices on the number of teachers to be recruited in the various subject-matters. An attempt to take all their viewpoints into account simultaneously would be impracticable in terms of acceptable timetables and costs. Another important way in which teachers exert influence is through their unions. They generally contribute to the preparation of reform projects and sit on the planning commissions, to discuss both broad policy and detailed measures to apply it.

The fact that the baccalaureate (upper secondary certificate) is also a sufficient condition for access to higher education has a strong influence on contents of curriculum of secondary education, which are thus made highly dependent on quality requirements of higher education (and of competitive examinations for admission in « grandes écoles »).

Personalities of the society, academicians, media also take their part in public debates over curriculum reform, advocating the particular educative necessity of most subjects. Professional groups play a direct role in determining the content of vocational education through professional consultative commissions.

Teachers are now more systematically consulted about curriculum reforms :

1995 Primary education : consultation of all teachers through publication of a curriculum project in the official bulletin (2/3 answered directly, some using the telematic network - MINITEL-, or through the schools or areas councils)

1996 Secondary education : consultation of all teachers on the 7th and 8th classes curriculum. Interested teachers send their answers to the regional pedagogic inspectors who are in charge of regional synthesis

1997 Secondary education : consultation of all teachers on the 9th classes curriculum through publication of a curriculum project in the official bulletin of the MOE.

1998 : consultation of all teachers on the technology curriculum project of the 9th class.

These consultations of teachers are now considered as an important first step in the new curriculum design process. Teachers are asked during this process to mind excessive overload, to look for possible cuts and complementarities and coherence between curriculum at all levels and with other neighbour subject-matters. They are asked to suggest interdisciplinary views. On the basis of these consultations, new projects are elaborated by the GTD which decide on modifications to be considered before official approval and publication .

B-3.4 In what way does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.

Unity is promoted by centralization of decision-power on curriculum at national level. Cultural diversity is promoted by admission of regional languages and cultures as options (and

exam subjects), and by the participation process in curriculum reform.

B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.

In primary education a policy of integration of handicapped children in ordinary schools is being developed. In colleges, adapted general and vocational educational sections (SEGPA, sections d'enseignement général et professionnel adapté) have been created for pupils who, after leaving primary school, still have serious learning difficulties. These SEGPA's have to provide basic acquisitions leading to further courses for vocational qualification.

Support systems can be organised in the 8th and 9th classes. They are designed, with smaller classes, for helping pupils to overcome difficulties preventing them of benefiting from the main stream courses.

Education priority zones (ZEP : zones d'éducation prioritaires) have been identified (about 560 concerning about 11% of all pupils in primary and lower secondary education). They get extra resources in the framework of a « positive discrimination » policy. As a consequence the number of pupils per class (22) is lower than in other schools. They include mostly primary and lower secondary schools in areas with populations with social and economic difficulties, and comparatively lower school achievement of the pupils.

Section C: Curriculum Design

Every country has to make decisions regarding the overall approach to curriculum design as well as to the subject areas that will be included in the school curriculum. This section aims to describe the school curriculum in each country.

C-1. Curriculum organization

C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

The curriculum tradition was content/topic based. A combination of approaches is now being used mainly since 1990 with more emphasis on competencies and outcomes.

C-1.2 Please describe whether your curriculum is mainly designed to:

- be implemented by teachers as written OR;
- be interpreted by teachers and implemented with variations OR;
- give teachers total freedom to create the curriculum OR;
- some combination of the above.

Please give examples to illustrate your answer.

The curriculum is mainly designed to be interpreted by teachers and implemented with variations. It gives contents, objectives, examples, the general progressions. The yearly

organisation, progression, choice of exercises are the teachers responsibility.

C-1.3 Basic structure of the current and/or future school curriculum

Please give the range of subjects offered in your country in years 1 - 9/ grades 1 to 9, giving specific information on the following matters:

- indicate what subjects are compulsory or optional;
- indicate the time allocation for each subject (in hours per year). Note - if your country does not have a pre-set time allocation either estimate or state 'not available';
- How many hours a week are allocated to co-curricula (or extra curricula) activities?
Are these compulsory or elective?

	Subject	Grade/Year								
		1	2	3	4	5	6	7 per week ****	8 per week ****	9 per week ****
Compulsory	French (including option for one hour of initiation to a modern foreign language in the 2nd form, and up to 1.5 hours of initiation to a modern foreign language in forms 3,4 and 5)	324	324	324	324	324	216	4 - 5.5	4 - 5.5	4 - 5
	foreign languages						144	3 - 4	3 - 4	3
	Mathematics	180	180	198	198	198	144	3.5 4.5	3.5 4.5	4
	"world discovery" (Découverte du monde), civic education	144	144							
	a) Arts, b) Physical education and sports	216	216	198	198	198	a) 72 b) 14 4	2 - 3 3	2 - 3 3	2 3
	a) history, geography and b) technology			144	144	144	a) 54** b) 54	a) ** 3 - 4 b) 1.5 2	a)** 3-4** b) 1.5 2	a) 2.5** b) 2
	Life and Earth sciences						54	1.5 - 2	1.5 - 2	
	Biology - geology									1.5
	Physics and chemistry							1.5 - 2	1.5 - 2	2
	Civics									1
	Directed study time * (études dirigées) supervised study time (études surveillées)	72	72	72	72	72				
							72			

Subject	Grade/Year								
	1	2	3	4	5	6	7 per week ****	8 per week ****	9 per week ****
Optional.	One Compulsory choice Between :								
	Second foreign language or Third foreign language or Regional language							2	
	Regional language (if not taken as a compulsory option)							3	
	Latin						2	3	3
	Technology (in small groups).							3	
	9th : One compulsory option, one additional free between:								
	Greek								3
	1st foreign language (intensified)								3
	Second foreign language								2
Co-curricula									
Total (periods of 55 minutes)		864 + 72	864 + 72	864 + 72	864 + 72	864 + 72	882 + 72	918	918
								week 25.5	week 25.5

* in primary education half an hour is to be daily dedicated to "études dirigées" to give pupils working methods : consultation of documentation, preparation of papers and lessons

** civic education : one hour every two weeks

*** plastic arts 1 hour, music 1 hour

**** hours per week : the school can decide within this margins and the total of 25.5 hours a week (918 a year)

C-1.4 Integration

When the NIER survey on curriculum was undertaken ten years ago, curriculum integration was identified as a key issue and concern. In that earlier survey integration was viewed as a continuum. At one end of the continuum was combining the knowledge of several subjects with similar features into one subject area while at the other end was an interdisciplinary approach to integration through the organization of the content and teaching-learning process around themes.

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

It is still a major concern,

- at national level :
 - in the curriculum reform and design process : one of the role of the National council of programmes (CNP) is to provide cross subject views, to ensure vertical (along the years) and horizontal (at each level) coherence, to incite to restructurations, identification of priorities and fundamentals of all subjects.
 - In the recommendations and instructions to bring into various subjects concern for a variety of social contemporary issues (education for development, peace, human rights, children's rights, health, road safety, consumer education etc..)
- at class level through recommendations to teachers to prepare jointly with colleagues specialists of other subjects cross cultural and disciplinary approaches for part of the allocated time.

C-1.5 Specific curriculum areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated area, at what level of schooling they are taught, etc.).

Themes/Areas		How your curriculum deals with the theme/area	Level of Schooling
values/international understanding (e.g. moral/ethical issues etc.)		education for development, citizenship education, human rights	Prim/secondary
education for the world of work		Technology as a subject of general education	secondary
foreign languages		compulsory and optional	Prim/secondary
computer/ information technology		as a tool for all subjects	Prim/secondary
health education (e.g. diet, drugs, HIV/Aids)		in biology and other subjects	Prim/secondary
environmental education		in geography and other subjects	Prim/secondary
Others	road safety	in biology , geography, maths, French and foreign languages	Prim/secondary
	consumer education		

C-1.6 Curriculum coverage

In designing the curriculum, countries need to make decisions about the breadth and depth of subject content and approaches. Some countries believe that the general education provided in their school system requires students to cover too many subject areas. There are pressures, also, to add new subject areas such as environmental studies; international understanding; information technology etc. Other countries are concerned about the number of subjects that students are required to study either because of the pressure this puts on students or because it means that subjects are approached in a way that does not lead to a depth of understanding or to the fostering of creative and critical thinking. There is also concern that overcrowding of the curriculum is being caused by the fact that schools are being asked to take responsibility for a wide range of social issues that were once viewed as the responsibility of families or the community as a whole (for example, appropriate behaviour, personal etiquette, etc.).

C-1.6.1 What are the issues in your country with regard to pressure on the coverage of the curriculum?

There is a debate on overload, on lack of co-ordination between subjects : the aims of programmes are therefore not always attained at the end of the school year. However teachers are keen on preparing their pupils for the brevet (end of 9th class) and the baccalaureate examination (end of 12th class) and for prerequisites to study the next class level, by covering all foreseen contents.

C-1.6.2 What steps, if any, are being taken to address these concerns?

Curriculum reform and design is expected to better identify the "fundamentals" of each subject-matter, allowing to concentrate on them in order to update transmitted knowledge and focus on essential notions without overloading each subject and reducing the level of requirements. This has led for instance to a reduction of programmes in sciences in October 1998.

Section D: Curriculum Implementation

Unless there are effective strategies for the implementation of curriculum policies, an education system does not derive the full benefits that should accrue from the school curriculum. This section of the questionnaire seeks responses to key aspects which are crucial for curriculum implementation: teacher development; resource provision; classroom strategies and student assessment.

D-1. Teacher Professional Development

A good curriculum will simply remain a curriculum on paper if it is not implemented properly. The teacher and the instructional leaders in the school are the key to the implementation of that curriculum. The questions below seek to find out how teachers in your country are prepared professionally for teaching, and the programmes available for their continuous professional development.

D-1.1 Pre-service teacher development

D-1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

Yes

D-1.1.2 Is there a prescribed national curriculum/guidelines/ framework for pre-service teacher education in your country?

Guidelines are provided by the ministry of education to the university teachers training colleges (instituts universitaires de formation des maîtres - (30 IUFM -). Circular n° 26 (14/11/1994) defines the national framework for the content and certification of training organized by the IUFM. The structure of this training is based on the link between theoretical and practical training throughout the programme.

D-1.1.3 What is your country's programme for pre-service teacher development?

Level of Teacher	Title/Length of Program	Type of Institution	Minimum entry requirement
Primary	a) preparation to competitive examination : 1 year b) professional training: 1 year	IUFM	licence (3 years)
Lower Secondary	a) b)	IUFM	licence (3 years)
Upper Secondary	a) b) b)	IUFM "	- licence (3 years) - master (4 years), and agregation competitive examination

Teachers are recruited among candidates holding a 3years university degree. They can be admitted in a Teachers Training College on the basis of assessment of their academic achievement, or an interview, in order to follow a preparatory year (theoretical and practical) for a competitive examination (concours). The 30 IUFM replace former teachers training structures, distinct for primary and secondary education.

The qualification received at the end of the second year is based on the work accomplished during an eight-week period of teaching practice, the subjects studied at the IUFM, and a term paper dealing with a practical aspect of education. It grants teachers official status and gives them the right to a teaching position.

D-1.1.4 Pre-service teacher education programmes usually include components of education foundations (e.g. sociology of education, history of education); general methods courses (e.g. educational technology, classroom management, assessment); subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practice. Please describe the general components of the pre-service teacher education programme in your country.

In addition to courses related to their chosen subject-matter(s) IUFM students have to acquire general methodologies, such as educational technology, classroom management, sequencing teaching activities, assessment, analysis and management of pupils' diversity; orientation and guidance, principles, structures and regulations of the educational system, introduction to educational system of other countries, etc.

D-1.1.5 Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education ? Please give specific examples to illustrate your answer.

Major changes in the national school curriculum are integrated in the national framework for the content and certification of training organized by the IUFM.

D-1.2 In-service teacher development programmes

D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?

It is voluntary. Throughout their career, teachers in primary education benefit a 36 weeks in-service training, not compulsory. Secondary education teachers benefit a national and regional plans for continuing education, including "summer universities" on a great variety of scientific and methodological topics. They can candidate to participate in proposed seminars or workshops according to their wishes, with approval of the headmaster. Some of these courses are organised by inspectors and trainers in the school itself for its teachers and those of neighbour schools. Inspectors can incite them to follow specific courses. A project to allow secondary school teachers to have 35 hours a year of continuing education (out of school

hours) is being considered (not yet approved nor implemented).

D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?

The ministry of education, as all ministries has, by law and agreements with the teachers' unions, an obligation to dedicate resources to continuing education of its personnel and organize courses. Training plans are designed at national ("plan national de formation" and "universités d'été" - summer schools) and regional levels ("plans académiques de formation"). Regional training plans were formerly designed and managed by the MAFPEN (mission académique à la formation des personnels de l'éducation nationale), an in-service continuing training service directly depending from the regional head of educational services, the "Recteur d'académie". The IUFM will be from now on in charge of both pre-service and in-service continuing training.

D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?

There are teachers' associations in all subject-matters ; they organize meetings, publish specialist journals and reviews.

D-1.2.4 Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?

Part of in-service training is dedicated for volunteers who wish to prepare competitive examinations for reaching higher, and better paid, categories in the public service and the teachers'career.

Other in-service training courses are offered and published by an "academic (i.e. regional) training plan" elaborated by the MAFPEN on the basis of needs surveys among teachers and inspectors (also by a national training plan and national « summer schools »). Part of it can be taken on service time (especially when organised in the school itself at a time when the teacher(s) is (are) on teaching duty), but no direct relationship between course attendance and promotion is established. For approved training events outside the area, teachers are paid travel and per diem.

D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/voluntary in-service training provided; or teacher guides to the curriculum published etc.

Inspectors are involved in explaining and commenting the new curriculum to the teachers during meetings in their schools. Training schemes are also included in the national and local

training plans proposed to the teachers. Teacher guides to the curriculum, as well as parents (and employers) guides are to be published simultaneously to new curriculum.

D-2. Resource Support

Countries are using a diverse range of materials to support the implementation of new curricula. Material support of various kinds may assist in the provision of information for students, provide a guide to teachers and assist teachers in implementing effective classroom programs that actively involve the students in learning. This material support may take various forms such as: textbooks, videos, computer software, calculators, equipment and apparatus, multimedia, teacher guides and CD ROM's. The following questions are designed to find out the kinds of support materials countries are currently using to assist teachers implement curriculum change.

D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:

- (1) Government directly sponsoring the writing, production, and distribution of text books
- (2) Government approving a particular selection of textbooks
- (3) The choice of textbooks entirely made by schools and/or teachers
- (4) Other methods - please specify.

Please indicate which of the above apply to your country.

The choice of textbooks is entirely made by schools and teachers (3). No methods nor any specific didactic material are imposed. Local or regional associations, departmental or regional pedagogic documentation may publish didactic materials.

D-2.2 What other teaching/learning support materials are available for schools (e.g. teacher guides, video tapes, computer software, CD-ROM's etc.)?

Guides for evaluation of pupils' achievements and teachers guides for programmes' implementation ("documents d'accompagnement des programmes") are elaborated by the ministry of education. They are sent or made available to all interested teachers.

Video tapes, computer software, CD-ROM's are designed by the national pedagogic documentation center (CNDP) and proposed to schools and teachers in its catalogue, other are designed and sold by private publishers.

D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise etc.)

The national pedagogic documentation center (CNDP) produces and sells on a yearly catalogue various documents (books and other written material, audio, video, CD) adapted to curriculum updates at all levels. Regional and departmental documentation centers produce and propose their own additional documentation to schools.

D-2.4 How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

In primary and lower secondary (compulsory education), textbooks are free : in the college, teachers councils (conseils d'enseignement : all teachers of each subject-matter for each level) meet for every subject-matter and decide of one title for each level among all available titles published by private textbooks publishers (up to 10 for one subject) for this level (4 levels : up to 9 books by level), either when the curriculum is changed or every 3 or 4 years. The chosen textbooks are bought by the school and lent to the pupils for the year ; they have to be given back to the school at the end.

Each secondary school has a documentation and information center (CDI). It is directed by a documentalist who makes educational materials available to pupils and teachers and provides technical assistance, such as audio-visual and copy services. Pupils can carry out documentary research in the CDI, which allows them gradually to become more independent.. Each CDI can buy on its pedagogic subventions "pedagogic sets" (« valises pédagogiques ») containing various documents and materials corresponding to the curriculum (in sufficient numbers for an average class. They are lent to classes and pass from one class to another throughout the year.

D-3. Community Support

D-3.1 In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO's, the religious community etc.) supporting curriculum implementation? Please give specific examples.

Local authorities can help through provision of additional equipment (often computers). Enterprises are committed to pay a tax (0.5 % of gross salaries) for technical and vocational education purposes : they can deduct from the tax they have to pay subventions they give to initial technical education centers (public or private, secondary and/or higher education) of their choice. This can be done by giving equipment to these chosen schools.

In the schools, clubs can be organised and led by volunteer teachers or other non-teaching staff in various fields such as photography, cinema, theatre, chorales, aeromodélisme, etc. A sport association and a social association (foyer) organize corresponding activities with help of parents and the local authorities.

D-4. Classroom Strategies

So far the questionnaire has been concerned about the implementation of the planned curriculum. However, the teaching methods employed also have a critical influence on curriculum implementation.

D-4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

Teachers are now more systematically consulted about curriculum reforms : this systematic consultation is a first step to prepare and associate them to these changes.

A national training programme (and "summer universities") and academic (regional) training programmes, information seminars led by subject inspectors provide information possibilities.

D-4.2 What are the major issues and concerns about teaching methods in your country?

Two broad views have long been conflicting as to the reform of the lower secondary system (colleges), coinciding with differences in initial teachers' training and the viewpoints and interests of the different categories of teachers involved :

- the primary-school teachers and those among lower-secondary teachers who graduated (with two teaching subjects) from the ranks of the primary schoolteachers. They put the emphasis on pedagogical training for the teaching staff.

- the university-graduate secondary-school teachers. These put more emphasis on the transmission of knowledge and the need for a unified teaching corps throughout the entire secondary system, from the end of primary school up to the baccalaureate, rather than on pedagogic and didactic issues. Their dominant view was that the best pedagogic training remains a high level mastery of their subject-matter(s).

This long-standing opposition between categories of teachers has lost much strength, although the debates subject/pedagogy and didactic centred teaching are still much alive. The creation of the IUFG has made a pedagogic preparation to all teachers' careers compulsory.

D-5. School-based Student Assessment

A key issue for the effective implementation of the curriculum involves students and their learning at the school level. Countries use a variety of strategies to assess student learning. School based assessment provides feedback to teachers with respect to the effectiveness of their teaching, and provides students and parents with essential information about student progress.

D-5.1 Data is collected to assess students' performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc.), and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

Evaluations are made with all children at three strategic pedagogic levels, at the beginning of the school-year : for French and mathematics at the beginning of 3rd class - CE2, middle of elementary- and of 6th class, the beginning of lower secondary ; at the beginning of 10th class, the first year of upper secondary, in French, mathematics, a foreign language, history and geography. Other evaluations are made by samples for other subjects and forms. They include lists of items chosen by experts of the evaluation branch and the subject inspectorate of the ministry of education, incorporating new aims of the curriculum.

All these data obtained from these systematic evaluations are to be used in their classes by the teachers, (with different balances according to subjects), in order to help them to identify specific difficulties of their pupils and to design adapted teaching methods.

D-5.2 There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?

Primary education : Each child's situation is assessed by the teachers' council of the cycle. It decides on promotion of pupils within the cycle on the advice of their teachers. To adapt the progression to each child's learning rhythm, the time he spends in each cycle can be extended or reduced by one year. A written proposal is sent to parents, who can accept or challenge it by an appeal.

A report booklet (livret scolaire), for each child is a communication tool between teacher and family. This booklet indicates the results of periodic assessment and provides information on the skills acquired by the pupil. It informs parents of proposals by the teachers' council of the cycle concerning the child's promotion to a higher class or cycle.

Lower secondary

Children who complete normal school attendance, or only have difficulties that do not correspond to special education, are promoted automatically from primary to secondary school. As in primary school, parents are expected (exceptions are made) to enrol their children in a school within their school geographic area.

Families receive a termly report which contains the pupil's results and teachers' comments in each subject area, general comments, and advice from the head teacher. The child's booklet contains his marks, with the teachers' comments on his work and progress, a class timetable, and pages reserved for correspondence with the parents. They can meet with class teachers, with the principal teacher and the guidance counsellor.

During a cycle pupils move up to the next class automatically, except if the family requests, or agrees, that the pupil repeats a class level. At the end of a cycle, they move up to the next class by decision of the head teacher after consultation with the class council. The family is entitled to appeal if they disagree.

D-5.3 Performance can be reported as a percentage rating (e.g. 75%, 80%, etc.), grade rating: (e.g. A, B, C, etc.) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

Grade rating with additional comment.

D-5.4 Does your country have any external examination system? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (e.g. how it might influence the aims/goals of the planned curriculum).

The examination system is almost completely external. At the end of the 9th class (3ème) a national certificate (diplôme national du brevet) can be taken (general or technological , or vocational - "brevet général, technologique ou professionnel " -). This is a general education certificate and it does not determine the pupil's future orientation. The certificate is awarded on the basis of marks achieved in the examination at the end of the 9th form and of the results during forms 8 and 9 (4è-3è).

At the end of the 12th class (terminale : last class of general and technological upper secondary schools) pupils take the baccalaureate. In vocational upper secondary schools they can take a vocational aptitude certificate (CAP), a vocational studies certificate (BEP), and later on a vocational baccalaureate (BacPro). The examinations relate to the official curricula of the terminal classes in upper secondary schools.

D-6. Barriers and Constraints to Effective Curriculum Implementation

The effective implementation of curriculum is dependent on a multitude of factors. Countries report that difficulties/barriers that have been identified as constraints to effective curriculum implementation include: inadequate support instructional materials; large class sizes; language of instruction; out-of-date materials; teachers qualifications, teacher availability; teachers knowledge, skills and attitudes; and the performance of teachers and principals.

D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

Overload within various subjects prevent some teachers from having « completed the programmes » at the end of school year. The time required for examinations at the end of school year limits availability of teaching time.

Section E: Curriculum Monitoring and Evaluation

The main purpose of this section of the questionnaire is to find out whether any programme of curriculum evaluation is in operation in your country and how curricula are revised. It needs to be noted that this section is devoted to overall curriculum evaluation and not to individual students evaluation which has been covered in Section D.

E-1. Monitoring and Evaluation

There are a number of ways in which the curriculum can be monitored and evaluated. For example, monitoring visits by supervisors/inspectors, consultative assemblies and curriculum conferences.

E-1.1 What processes are used to monitor curriculum implementation in your country?

At national level the general inspectorate of national education (IGEN) supervises all school institutions, of the different types of education and training, the contents of education, curricula, teaching methods of the teachers, techniques employed and school results. In its annual report on the situation of education, it also provides information on innovative practices in teaching.

Regional subject inspectors (IPR) are in charge of appraisal of secondary school teachers of their subject (the markings and appraisals they give can be used in the teachers' careers). National education inspectors (IEN) are responsible for the inspection of primary schools and teachers. Inspectors are also involved in explaining and commenting reforms and changes in the curriculum and in in-service training of teachers.

E-2. Curriculum Evaluation

Countries have a variety of strategies for curriculum evaluation such as: analysis of curriculum documents with respect to policy statements; validation conferences with relevant stakeholder; and pilot studies in a few school settings.

E-2.1 Please describe the mechanisms/major tools used in your country for curriculum evaluation?

A national evaluation of knowledge in reading, writing and reckoning for all pupils beginning the 3rd class in primary schools and 6th class in the colleges has been organised since 1989 at the beginning of every school year, aiming at giving each teacher an adequate tool about assessment of the knowledge of his own pupils and gauging their pupils' progress in these three basic domains and helping him to choose the best pedagogic methods. A national evaluation is also conducted for all pupils at the beginning of 10th class in French, mathematics, a foreign language, history and geography. In a growing number of subject-matters, diagnosis and formative evaluation tools are elaborated by the ministry of education and made available to teachers from pre-school to the 10th class, in order to help them to adapt their pedagogic practices and methods to the variety of their pupils' needs. The use of these tools is now common, when not general.

E-2.2 How are the results of the national curriculum evaluation used in your country? For example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.

Both are aimed at, including a direct feed-back to every teacher so as to enable him to choose the best strategies according to the specific identified difficulties of his students.

E-3. Monitoring of Local Curriculum

E-3.1 In a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?

The decentralisation laws excluded the curriculum from decentralisation; it remains a basic responsibility of the central government (ministry of education). However some flexibility has been allowed to schools through their pedagogical autonomy. They can freely organise, through the "school project", the distribution of curriculum within the global limits of allocated hours and the statutory time-table for each subject.

The Fauroux commission proposed 1996 that every school, within a limit of 20 %, should be allowed to design changes of the curriculum and the time allocation according to local needs.

E-4. Student Assessment for Curriculum Monitoring

Some countries are using national student achievement studies to evaluate the effect of the curriculum. For example, national assessment programmes, local assessment programmes, the observation of classes, performance testing etc.

E-4.1 What types of assessment are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.

See E 2.1.

E-5. Research and Curriculum Development

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

Germany

Georg Knauss

Germany/Bavaria

Education in Germany and in Bavaria

I.

The Federal Republic of Germany is – as its official name indicates – a federal state; it is made up of sixteen states – “laender”, as they are called in German. The laender have transferred a great deal of the competencies of a modern state to the Federation (the Federal Government and the Federal Parliament), but they have retained as a “core part of their sovereignty” the responsibility for education. This general statement has to be somewhat qualified since the Federation does hold a number of clearly defined competencies and responsibilities also in the education system. These competencies refer mainly to vocational education where there is a split responsibility between the Federation and the laender, and to higher education where the Federation has the right to pass framework legislation, to contribute to the construction (but not the running) of higher education institutions and to cooperate with the laender in educational planning. There are some other competencies for the Federation which need not be mentioned here, but generally speaking the laender are very proud of their “cultural sovereignty”(Kulturhoheit) and jealously defend it against attempts to restrict it. The reasons for all this lie in the historical development of Germany and the manifold ethnical, cultural, religious and economic traditions of its regions. On the other hand, it goes without saying that even in a state with a basically federal structure there is a need for cooperation on the national level, both between the laender themselves and between the laender and the Federation, for the benefit of providing fairly equal living conditions across the whole country and for the safeguarding of nation-wide mobility of the population. As will be shown, a number of institutional mechanisms and measures exist to this end.

School education in particular is the stronghold of the cultural sovereignty described. For the purposes of the Comparative Study of School Curriculum undertaken by NIER and the other participating countries it is therefore necessary to select one German state as a “focus of completion”, as is suggested in the Explanatory Note of the questionnaire. Since the author of this contribution has worked for over 35 years in the Bavarian school system as a teacher and as an administrator, it seemed obvious for him to choose Bavaria as the state whose provisions for curriculum development would be presented in detail. On the other hand, experience in various functions on the national (German) level enables him to give a reliable overview of the working cooperation on that scale.

II.

General education from kindergarten through primary school to lower secondary schools is entirely the responsibility of the laender and, consequently, of each land (state). In upper secondary education we have to distinguish between general education schools – the college-bound “Gymnasien” – and vocational education which in its “dual” form – apprenticeship in enterprises, continued education in vocational schools – is characterized by a split responsibility between the laender and the Federation.

As long ago as 1964, the Prime Ministers of the laender concluded an agreement with the purpose of ensuring a “uniform basic structure” of the school system. Before that (1948) and even before the foundation of the Federal Republic, the education ministers of the laender set up a Standing Conference of the Ministers of Education (“Kultusministerkonferenz”) with the aim of seeking agreement on fundamental questions in the various education sectors. After 50 years of cooperation, competition and sometimes conflict they have recently reconfirmed the motto of “unity in diversity” as their guiding principle.

As far as the school curriculum for general education is concerned, the following agreements in their latest version are relevant in the context of our investigation:

- Recommendations on the Pedagogical Work in Primary Schools(1994)

- Agreement on the Types of School and Courses of Education on the Lower Secondary Level(1993)
- Resolution on Intermediate Graduation Standards in German, Mathematics and the First Foreign Language (1995)
- Agreement on the Structure of General Upper Secondary Education (1997)
- Unified Examination Requirements for the Final Examinations in General Upper Secondary Education(1989)

These recommendations, resolutions and agreements are the result of longtime consultation and decision-making between the laender. They guide the corresponding regulations in the laender, but leave in many cases a great deal of freedom to them to find their own rules. (The texts of the documents can be provided in Germany only).

In the vocational sector of upper secondary education there exists the specific German "dual system" in which about two thirds of the young people undergo training both at the workplace and in a vocational school. There are some 370 recognised occupations requiring formal training. The skills and knowledge to be acquired at the workplace are set out in training regulations which are elaborated on the national level in a joint effort of Federal and laender governments, industry and trade-unions and are coordinated with the framework curriculum for the vocational schools of the laender. It is a complex system, but it has worked remarkably well. Problems arise out of the fact that under present circumstances there is a notable shortage of apprenticeship places which makes applicants look for other ways of obtaining vocational qualifications.

A diagram giving an overview of the overall structure of the education system in Germany is included in the annex.

III.

The Bavarian school system (to which the answers in the questionnaire refer) is a differentiated system. Kindergartens or nursery schools fall under the responsibility of the Ministry for Social Affairs. The Ministry of Education in Munich is responsible for the whole range of schools in Bavaria, whether they are state schools, communal schools or private schools. Compulsory education lasts at least for twelve years starting at age 6 and on average lasting to age 18 (vocational) or 19 (college-bound). Numbers are given in the General Information Section of the questionnaire.

By differentiated system we understand a school system which after primary school (grades 1-4) assigns pupils according to their abilities and the wishes of the parents into a number of separate types of school which, in turn, have clear-cut educational goals. The attached diagram gives a comprehensive overview over the educational streams and tracks. Provision is made for permeability, e.g. for possibilities of transfer from one type of school to the other, preferably at the end of an educational course. There are very few comprehensive schools of the English type or the type of the American High School. In the 1970's and 80's there was a fierce ideological struggle between supporters of the one or the other system in Germany; this has more or less come to an end with the recognition that what really matters in education is a good school, and a good school is not only determined by the structure of the system, but also by an inspired leadership, by the quality and devotion of the teachers and by a cooperative atmosphere of the entire school community.

IV.

A discussion on curriculum policies and developments in Germany and Bavaria cannot leave out the impact which the Third International Mathematics and Science Study (TIMSS) has had – and still has – on educational debates in our country since its publication in 1997. The international comparison of test achievements in mathematics has clearly shown that German students lag behind their peers from Singapore, Korea and Japan and that even in Europe they hold only a middle position. Science results are slightly more positive. These findings have somewhat shaken our long cherished belief in the quality of our

education system, and politicians from all quarters now call for action. The Conference of Education Ministers has unanimously come to the conclusion that measures for quality assurance and improvement are necessary. Such measures will on the one hand concentrate on proposals and action for change in the way mathematics is being taught and tested in the schools – an experimental programme has already been installed in the laender. On the other hand, there is agreement on the necessity for inter-laender comparisons in order to enable governments to take adequate steps towards quality assurance in their own reach. As for Bavaria, these decisions fall very much in line with the government's determination to keep on modernizing the country and making it competitive in all aspects, and education is clearly perceived to be a key factor for the realization of this aim.

Basic Structure of the Educational System in the Federal Republic of Germany

Further Education (various forms of general and vocational further education)					Further Educ. / Tertiary Educ.
Degree or examination after a first course of study (diplom, Magister, Staatsexamen)					
Qualification of vocational further education	Allgemeine Hochschulreife	UNIVERSITÄT ⁽¹⁾ TECHNISCHE UNIVERSITÄT/ TECHNISCHE HOCHSCHULE GESAMTHOCHSCHULE PÄDAGOGISCHE HOCHSCHULE KUNSTHOCHSCHULE/MUSIKHOCHSCHULE FACHHOCHSCHULE VERWALTUNGSFACHHOCHSCHULE			
FACHSCHULE ⁽¹⁰⁾	ABENDGYMNASIUM/ KOLLEG				
					Sec level II
Allgemeine Hochschulreife					19
Vocational Qualification ⁽⁹⁾					18
Fachhoch- Schulreife					17
GYMNASIALE OBERSTUFE ^{(2),(4)}					16
in the different school types: Gymnasium, Berufliches Gymnasium / Fachgymnasium, Gesamtschule					15
Vocational education in the BERUFSSCHULE and ON-THE-JOB-TRAINING (Dual System) ⁽²⁾					14
BERUFS- FACH- SCHULE ⁽⁸⁾					13
FACHOBER- SCHULE ⁽⁷⁾					12
Berufsgrundbildungsjahr at school or in cooperative form ⁽³⁾					11
					10
Mittlerer Schulabschluss/Realschulabschluss (Realschule leaving certificate) after 10 years, Hauptschulabschluss (Hauptschule leaving certificate) after 9 years ⁽⁵⁾					Sec level I
					16
10 th grade					15
HAUPTSCHULE					14
REALSCHULE					13
GYMNASIUM					12
GESAMT- SCHULE ⁽⁴⁾					11
Orientation stage irrespective of the school type or as a separate school type ⁽³⁾					10
					9
SONDER- SCHULE ⁽²⁾					8
GRUNDSCHULE ⁽¹⁾					7
					6
					5
SONDER- KINDER- GARTEN					4
KINDERGARTEN (optional)					3
					2
					1
					0
					grade

Annotation

Diagram of the basic structure of the education system. Lower secondary education (secondary level I) is portrayed in line with the distribution of the school population in 1994 taken as a national average: *Hauptschule* 25.6%, *Realschule* 26.5%, *Gymnasium* 31.5%, *integrierte Gesamtschule* 9.0%. Unlike the basic structure presented here, the provision of schools at secondary level I – with the exception of *Sonderschulen* – varying in the different Länder includes:

- separate schools which prepare pupils for one of the three school-leaving qualifications, namely *Hauptschule*, *Realschule* or *Gymnasium* and offered in most Länder;
- unified schools which prepare pupils for any one of the three school-leaving qualifications. *Hauptschule*, *Realschule* or *Gymnasium* are either united into a single administrative unit with pupils being streamed according to their intended final qualification (*kooperative Gesamtschule*, *Schulzentrum*) or the three school types are united administratively and educationally with pupils being taught in mixed-ability groups while setting is gradually phased in for some subjects (*Integrierte Gesamtschule*);
- unified schools which prepare pupils for one of two leaving certificates (*Hauptschule* and *Realschule*) with various names in the different Länder, such as *Mittelschule* (Sachsen), *Regelschule* (Thüringen), *Sekundarschule* (Sachsen-Anhalt, Saarland), *Integrierte Haupt- und Realschule* (Hamburg), *Verbundene Haupt- und Realschule* (Hessen) and *Regionale Schule* (Rheinland-Pfalz).

The ability of pupils to transfer between school types and the recognition of school-leaving qualifications is basically guaranteed if the preconditions agreed between the Länder are fulfilled. The duration of full-time compulsory education (compulsory general education) is 9 years (10 years in four of the Länder) and the subsequent period of part-time compulsory education (compulsory vocational education) is 3 years.

- 1) In some Länder special types of transition from pre-school to primary education (*Vorklassen*, *Schulkindergärten*) exist. In Berlin and Brandenburg the primary school comprises 6 grades.
- 2) The disabled attend special forms of general-education and vocational school types (in some cases integrated with non-handicapped pupils) depending on the types of disability in question. Designation of schools varies according to the law of each Land.
- 3) Irrespective of school type, grade 5 and 6 constitute a phase of particular support, supervision and orientation with regard to the pupil's future educational path and its particular focuses. In some Länder, the orientation stage (*Orientierungsstufe*) is organized as a separate organisational unit independent of the standard school types.
- 4) The provision of comprehensive schools (*Gesamtschulen*) varies in accordance with the respective educational laws of the Länder.
- 5) The general education qualifications that may be obtained after grades 9 and 10 carry particular designations in some Länder. These certificates can also be obtained in evening classes.
- 6) Admission to the *Gymnasiale Oberstufe* requires a formal entrance qualification, which can generally be obtained after grade 10. Sachsen-Anhalt and Thüringen have ruled that the formal entrance qualification can be awarded after grade 9 at the *Gymnasium*. The *Allgemeine Hochschulreife* can generally be obtained after the successful completion of 13 school years, i.e. consecutive grades. In four Länder (Sachsen, Sachsen-Anhalt, Thüringen and Mecklenburg-Vorpommern) the *Allgemeine Hochschulreife* can, for a transitional period, be acquired after 12 years of schooling.
- 7) The *Fachoberschule* is a school type lasting two years (11th and 12th grades) which takes pupils who have completed the *Realschule* and which qualifies them for higher education *Fachhochschulreife*. Pupils who have successfully completed the *Realschule* and have been through initial vocational training can also enter the *Fachhochschule* directly in the 12th grade. Alternative routes for acquiring the *Fachhochschulreife* are e.g. *Berufsfachschule* and *Fachschule*.
- 8) Full-time vocational schools differing in terms of entrance requirements, duration and leaving certificates. Certain two-year *Berufsfachschulen* requiring a *Realschule* certificate for admission lead to a state-recognized examination as technical assistant. One-year courses at *Berufsfachschulen* offer basic vocational training.
- 9) Extension courses are offered to enable pupils to acquire qualifications equivalent to the *Hauptschule* and *Realschule* leaving certificates.
- 10) *Fachschulen* are schools at the upper level of secondary education offering courses of between 1 and 3 years education.
- 11) Including institutions of higher education offering courses in particular disciplines at university level (e.g. theology, philosophy, medicine, administration science, sport).

Section A
Background Information on Bavaria

A-1. General Information

A-1.1 Size of Population

Year 1996

Total (in thousands)	Annual population growth rate
12,044	0.4%

A-1.2 Total Number of Children in Age Groups(in thousands)

Year 1996

Age Group	Males	Females	Total
0 - 04 years	338	320	658
5 - 09 years	356	337	693
10 - 14 years	327	312	639
15 - 19 years	321	307	628

A-1.3 Major Ethnic and Language Groups (in % of population)

Ethnic Group	%	Language Group	%
Germans	90.9	Germanic	
Turks	2.2	Turkish	
Yugoslavs	1.3	Slav	
Italians	0.7	Romance	
Greeks	0.6	Greek	
Bosnians	0.5	Slav	
Others	3.8	Others	

A-1.4 Major Religious Groups (in % , 1987)

Roman Catholics	67.2
Protestants	24.1
Muslims	2.0
Jews	0.05
Others	1.5
No religion	5.18

A-1.5 Annual Public Expenditure on Education: Year 1996,

Total and % of GNP, in thousands

Public Expenditure on School Education

in Germany	86,500 DM (German Marks)
in % of budget	7.3

Public Expenditure on School Education

in Bavaria	15,000 DM (German Marks), estimated
in % of budget	14.7

Percentage of GNP for Germany: 2.4

Percentage of GNP for Bavaria: 2.7

A-1.6 Language

A-1.6 1. National Official Language:

German

A-1.6 2. Language (s) of Instruction:

All students are required to learn German.

Students from foreign countries attending compulsory schools can, as a rule and wherever possible, choose courses in their native language.

A-2. The Educational System

A-2.1 Structure

Level	Duration in years	Age range taught	Pop. Total	Age group	Compul. or non
Pre-school	3	3-5	354	80-90	non
Primary	4	6-9	528	100	compul.
Lower sec.	5 - 6	10 - 15/16	710	100	compul
Upper Sec.	2 - 3	15/16-17/19	440	80-90	partly compul

The proportion of male to female pupils is 49:51.

A diagram of the school system is attached.

A-2.2 Class Size

Level	Average class size
Primary	24.5
Lower secondary	25
Upper secondary	19 - 24

A-2.3 Teachers

Level	Males	Females	Total	Teacher-student ratio
Primary	20%	80%	25,800	18.8
Lower sec.	60%	40%	44,700	15.9
Upper sec.	60%	34%	28,900	11 - 20

A-2.4 Number of Schools

Level	Government	Private	Communal	Total
Primary	2,320	76	-	2,396
Lower sec.	2,189	196	87	2,472
Upper sec.				
- General	300	64	32	396
- Vocational	449	464	357	1,270
Special sch.	205	216	7	428
Evening sch.	2	8	6	16
Total	5,465	1,024	489	6,978

A-2.5 Specific School Information

	Primary	Lower sec.	Upper sec.
School days per year	190	190	190
Division of school year	semester	semester	semester
Instruction days/week	5	5	5
Teacher's average class contact hours/week	28	27/24/23 *	23
Duration teaching period in minutes	45	45	45

* Hauptschule 27, Realschule 24, Gymnasium 23

A-3. Other Relevant Information

Please see the introductory note and the attached annexes.

Section B

Curriculum Policies

B-1. Background

B-1.1

In what ways, if any, are the social/economic/political cultural contexts of your country reflected in its curriculum policies?

The Bavarian government endeavours, by consistent and continuous action, to upgrade and modernize the curricula for the various types of school. Provision has been made for regular revision procedures to take account of political, social and scientific developments while at the same time trying to maintain what has aptly been called "the Curriculum of the Occident".

The most striking example of the last ten years is the introduction of computer education and the teaching of informatics in the syllabuses of our schools.

Another example is the introduction and expansion of modern foreign language learning in schools. This is in line with policy options on the level of the European Union whose aim it is to make every European citizen competent in two foreign languages, one of them, of course, being English. The "European Gymnasium" in Bavaria has no less than four foreign languages on its agenda.

Very striking examples are also the inclusion of cross-curricular themes into the syllabuses, reaching from peace and civil rights education to the European dimension in education, from health and sexual education to environmental education, from media education to vocational guidance.

B-1.2

Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

The goals and aims of school education are formalized in the Bavarian Constitution and the Bavarian Law on Education.

Article 131 of the Bavarian Constitution postulates what it calls "supreme tasks for education". These are "reverence for God, respect for religious convictions and for human dignity, self-control, the readiness to take over responsibility, willingness to help, open-mindedness for everything good, true and beautiful, and responsibility for nature and environment. The pupils are to be educated in the spirit of democracy, in the love for their (Bavarian) home-country and for the German people and in the spirit of reconciliation between the nations".

Article 2 of the Law on Education develops these "supreme tasks" more in detail as a kind of mission statement for the schools. In summary, schools have in particular to

- convey knowledge and skills and to develop abilities,
- enable pupils towards independent judgement and responsible action,
- to educate them for a responsible use of freedom, for tolerance, peaceful thinking and respect for other human beings,
- convey knowledge about history, culture and tradition of their home-country,
- contribute to the promotion of the European dimension,
- educate in the spirit of reconciliation between the nations,
- promote the readiness to defend the free, democratic and social constitutional state,
- enable to fulfil rights and duties in state and society and to prepare for the world of work,
- awaken a feeling of responsibility for our environment.

Schools are expected to do this by conveying to their pupils traditional cultural matters and values as well as new ones.

B-1.3

What regulations govern curriculum policies in your country?

Article 45 of the Bavarian Law on Education states that the basis for instruction and education in schools is formed by the syllabuses (curricula) and timetables decreed by the Ministry of Education. These regulations lay down the kind and the scope of the educational offers and options for the various types of school. They comprise the timetables with the time allocation for the subjects which are taught in the various grades, and they indicate whether the courses are compulsory or optional or can be chosen as alternative courses. They also list the number of tests to be taken and rule the ways in which student achievement is assessed, marks are given and promotion from one grade to the other is awarded.

Textbooks are produced in the free market, but must receive a formal admission before they can be used in the schools. They must comply with the requirements of the syllabus in question and must take into account the latest didactic methods and findings. Textbooks are for the most part provided free of charge for parents and pupils. Since there is a strong competition on the market, the quality of the textbooks is quite high.

The afore-mentioned regulations are mandatory for public and private schools alike. Only private schools which do not seek full recognition of their certificates are partially exempt from this.

B-2. Curriculum Change

B-2.1

Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years.

As already pointed out, there is a regular revision and overhaul of the curricula for the various types of school. Apart from this constant endeavour of modernizing contents, the following measures are worthwhile mentioning:

(1) In primary schools, starting with grade 3, we are introducing the teaching of a foreign language into the curriculum. The reason for this lies in the recognition of the fact that in a globalizing world the ability to communicate with others and to understand their way of thinking becomes more and more important, and language, of course, is a decisive factor for this. We offer courses in English, French and Italian to the children with the aim of opening their minds to foreign-language learning and make them "meet" a foreign language and the culture behind it.

(2) In the Hauptschule a number of "neighbouring" subjects have been grouped together in order to help teachers to better establish cross-curricular work and enable pupils to get a comprehensive overview of important fields of learning. The first subject group consists of history/social studies/ geography and the

aim is to give pupils an opportunity to study in depth the respective regions in history and in present times, thereby political, cultural, economic and geographical facts in physics/chemistry/biology with the intention of providing (Bavarian education) and a holistic approach to the manner in which we shape the modern world.

(3) The upper cycle of Gymnasium (grades 12 and 13), often proclaimed demands of higher education institutions of their students. Whereas for some twenty years there was no such demand, thereby weakening the general education core of the students, the importance of a sound and well-based knowledge in the fields of language, in history and the sciences.

B-2.2

What changes, if any, are likely to occur in the national general direction for on-going curriculum reform?

The main thrusts for future curriculum reforms will most

- to establish information technology as an independent school subjects,
- to extend and diversify the learning of foreign languages to better communication between people and nations,
- to promote cross-curricular approaches in teaching to overcome "fence" of closed subjects and fostering the awareness of life-long learning,
- to provide and intensify opportunities for independent learning from early age onwards as the basis of life-long learning,
- to enlarge the didactic spectrum of teachers and to support their pupils and students,
- to set clear standards and make quality assurance

Curriculum developers will have to bear in mind that th

B-3. Curriculum Development Processes

B-3.1

Is your country's system of curriculum development cer

The Bavarian system of curriculum development is centralised. The Ministry sets up curriculum commissions for the various subjects. These are taken care of by the State Institute for School Education. The Ministry, as a rule, provides the chairman and supports the commission. The proposals presented to the Ministry; after scrutiny within the Ministry, the Ministerial Council where representatives of teacher and parent associations, churches and last, but not least, pupils and students are consulted for their advice. After consultation and possible correction, the proposals are sent to the Minister. After publication in the ministerial bulletin, they are sent to the State Institute for School Education.

B-3.2 Who is responsible for initiating curriculum deve

There are several possible sources. One is certainly the Parliament for a continuous development of the eco-stemming from the general evolution of society. Another concerns and considerations may lead to initiatives and

study in depth the way in which human beings live together in their
times, thereby learning the interdependence of individual, social,
graphical factors. The second subject group brings together
ation of providing an integrated science curriculum (a novelty in
ach to the many scientific phenomena which have shaped and still

des 12 and 13) has been restructured with the aim of meeting the
cation institutions as regards the general education they expect of
years there was a tendency to open up the choices of subjects for
education core, the reform which is now under way re-affirms the
knowledge in the German language, in mathematics, in a foreign

in the national curriculum in the next five to ten years? What is the
a reform?

forms will most likely be
logy as an indispensable and integral part of teaching in all the

arning of foreign languages, taking into account the necessity of
people and nations in a world that is rapidly growing together,
proaches in teaching with the intention of "looking beyond the
stering the awareness of the interdependence of phenomena,
unities for independent and self-directed learning of pupils from an
life-long learning.

m of teachers with the aim of developing "key" qualifications in

quality assurance a unanimous concern for all schools.

in mind that their work must be targeted at these aspects and aims.

development centralised, partially centralised or decentralised?

elopment is centralised. According to the Law on Education, the
s for the various types of school. These commissions are as a rule
chool Education and Educational Research in Munich which, again
upports the commission in all matters. The draft curriculum is
within the Ministry, it is introduced to the State School Advisory
er and parents associations, of industry and commerce, of the
and students are being asked to consider the documents and give
ible correction, the curriculum document is finally authorized by
isterial bulletin it becomes mandatory for all schools concerned.

curriculum development in your country?

is certainly the Ministry itself which is generally responsible to
ent of the education system with regard to the requirements
society. Another source is, of course, Parliament where political
initiatives and requests for curricular reform and innovation.

An important actor in the field is the State Advisory School Council (ref. B-3-1) which can make proposals and give recommendations also in respect to curriculum development.

Finally, the State Institute for School Education and Educational Research has as a general task to support the Ministry in the general development of the Bavarian education system. In its annual report to the Ministry there is occasion for the Institute to give an overview of curricular developments and needs and make proposals for future work. Since the Institute keeps close contacts with schools all over the country it is in a fairly good position to know about practical needs and wishes from those at the bottom of the educational ladder.

B-3.3

In what ways are the viewpoints of different groups accommodated in the decision-making process?

The curriculum commissions consist of selected teachers and other educational professionals from all over the country. They are guided in their work by professional expertise from the Institute. The Institute itself can ask for advice from University staff, from teachers and parents associations; it is also in a position to commission outside expertise.

The role of the State School Advisory Council has already been described (ref. B-3-2). The new curricula for Gymnasium, for the Realschule and the Hauptschule have all been presented to the Council and were discussed there. It is, however, the Minister's decision to take comments and other suggestions into account.

A special situation is to be found when it comes to the curricula for vocational schools for obviously without advice and participation by practitioners in the field from industry and commerce curricula would lack realism and would not reflect the practical needs of the trade. Here we have a regular participation of those concerned in the curriculum commissions themselves: Representatives from the chambers of industry and commerce as well as from the trade unions are invited to take part as regular members, thus smoothing the way for later recognition with their organisations.

B-3.4

In what ways does national and/or local curriculum policy promote unity/cultural diversity in your country?

Curriculum policy in Bavaria applies to all the schools in the country and sets the same standards everywhere. The reason for this is that most people wish to be sure that the qualifications and certificates which their daughters and sons acquire in our schools "tell the same story", i.e. that they are equivalent and recognisable within Bavaria and all over Germany and, in particular, that they would be accepted when applying for an apprenticeship or a job. People want "equal living conditions", and in this sense curriculum policy has a unifying effect.

On the other hand we are well aware that people in the various parts of the country have different ethnical/tribal backgrounds, speak different dialects, have different cultural and religious traditions. In addition, some 10 percent of the population come from foreign countries with completely different sets of ethnical and cultural traditions. In curriculum policy we take care of these facts by giving due regard to the local and regional surroundings. Primary schools have a subject which is called "Heimat- und Sachkunde" and which is directed towards local history, geography and customs while at the same time encouraging schools to go out into the local community and observe and learn what life there means. The speaking of dialect is not only tolerated but encouraged, although, of course, the official language to be learnt is German. In secondary schools Bavarian history is always taught alongside German history, showing its contribution to the mainstream developments in Europe.

The presence of many foreign workers' children in the schools is taken advantage of to show that cultures and traditions can be different, that they can enrich our own experiences and views of life and that tolerance and mutual respect for diversity are among the most important values in life.

B-3.5

Is any particular provision made for children with special needs, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity?

In Bavaria, as in most German laender, we have a system of special schools whose task it is to take the particular handicaps, abilities and individualities of children into consideration. These schools are purposefully called "promotive schools", thereby expressing the very specific aim they have of fostering children with handicaps or difficulties to as high a level of competence as possible. At present, there is, however, a tendency to integrate many of these children into mainstream general education. In any case, specific curriculum provision is made for the handicapped based on a diagnosis as to their remedial needs.

The large majority of Bavarian schools practice co-education of girls and boys although there is a number of mostly private schools which are attended by girls only. Classroom investigation has shown, however, that in subjects like mathematics or informatics boys tend to behave in an obtrusive way so that the girls cannot fully develop their learning potential. As a consequence, there is a tendency to separate teaching in such subjects at least for a certain time to give girls a better chance of "speaking up". Textbooks are also carefully examined to obliterate the predominance of male role descriptions.

Children from low socio-economic backgrounds receive special help within schools, but no specific curriculum provision has appeared to be necessary for them.

Ethnicity is becoming a problem when children of foreign workers or asylum-seekers cluster together and are hesitant to open up to their new surroundings. In Bavaria, we offer a great deal of instruction in the native languages of those children, usually dispensed by native teachers; special curricula have been elaborated and published for these groups. But everyone of these children has to learn German, and we hope that one day they will be able to transfer to regular German classes. Integration, not segregation is the goal.

Section C Curriculum Design

C-1. Curriculum Organization

C-1.1 Describe the basic approach to curriculum design in your country.

In Bavaria, the curricula for the various types of school usually consist of four parts or levels.

- Level 1 describes the aims and claims of the type of school in question, its specific mission in the education system, and the way in which instruction and school life are expected to take shape.
- Level 2 describes the general aims of the various subjects in the form of subject profiles and possible cross-coordination between them.
- Level 3 describes in a comprehensive framework the aims and contents of every subject for each grade.
- Level 4 consists of detailed descriptions of the aims and contents of the various subjects throughout the grades of the school.

These four levels thus show a continuous increase in the degree of concretion as to subject-content.

The curricula, however, are also competency-based. They make distinctions between four didactic focuses and describe them for the various subjects in different degrees of complexity:

- knowledge
- ability and application
- productive/creative thinking and
- values orientation

Outcomes are usually measured by testing procedures during courses and by final examinations. The

curricula do not make prescriptions for the ways in which outcomes should be measured, although it is obvious that testing has repercussions on foregoing curricula and instruction. This "gap" has not been filled yet.

C-1.2 Please describe to which purpose your curriculum is designed.

The curricula are mandatory for schools and teachers. However, it is not expected that they are implemented word for word but rather interpreted by the teacher with regard to the situation in the classroom. Teachers are nevertheless guided in their actions to a very large extent by the textbooks which, in their turn, follow closely the curricula and can be regarded as a kind of "hidden curriculum".

It is also important to notice that the curricula are designed in such a way that they can be implemented in about three fourth of the total time for instruction. By this they leave a considerable amount of time for the teachers to be used as what is called "pedagogical free space" (paedagogischer Freiraum) at his or her discretion according to the needs of the pupils.

C-1.3 Basic structure of the current and/or future school curricula

- range of subjects
- compulsory or optional
- time allocation for each subject
- time allocation for co-curricula

As pointed out before, Bavaria has a differentiated school system. It is therefore impossible to fill out the tables provided in the questionnaire. Instead, the tables for the various types of school are attached as an annex; they contain all the information asked for.

One additional remark is necessary. Our timetables do not contain time allocation for co-curricula or extra-curricular activities. It lies within the responsibility of the school to provide and organize such activities as staff and financial means will allow.

C-1.4 Is curriculum integration still a major issue in your country?

Curriculum policy in Bavaria has always been subject-oriented in accordance with teacher training (with certain exceptions for primary schools).

Of late, there is one example where curriculum integration has taken place: As pointed out before, two groups of subjects have been introduced within the curriculum for the Hauptschule, viz. history/social studies/geography and physics/chemistry/biology; for the reasons please see B-2.1.

There is, however, a definite tendency to increase cross-curricular teaching. The new curricula will, as a rule, comprise marginal hints indicating possibilities for teaching "across subject borders".

C-1.5 How does your curriculum deal with new specific themes/special areas of focus?

One of the main problems of today's schools is indeed that society expects a great many new themes to be dealt with in the school curriculum while at the same time adhering to the traditional (and indispensable) subject areas. There is certainly a danger of overloading the curriculum.

The examples given in the questionnaire apply only partly to the Bavarian/German situation, so here is a separate attempt to provide appropriate answers.

The learning of at least one foreign language (usually English) has been mandatory for all secondary schools since 1966.

Computer education and information technology are progressively being introduced into the curricula of all

secondary schools, first as a kind of basic information for all pupils, then as a separate, sometimes optional subject with specific aims, e.g. programming etc. Primary schools are just beginning work with the computer, but not in a systematic way.

Education for the world of work finds its place in the whole range of vocational secondary schools; a German speciality is the so-called "dual system" combining apprenticeship and school education. Vocational guidance and "first-glance" work experience are provided in the secondary general schools, the Hauptschule curriculum includes a separate subject called "work studies".

Other themes like values education(ethics), health education (including family and sex education), international education (including education for Europe, for the Third World, for peace), environmental education and media education are assigned to related subjects of the regular school curriculum and largely supported by the provision of additional material for the teachers.

C-1.6 Curriculum coverage and pressures for new subject areas

The concerns expressed in the introductory note about too much pressure for new themes and the danger of overcrowding the curriculum are certainly justified and widely discussed in Bavarian/German education as well.

The movement of "back to the basics" and the call for a re-affirmation of core general education are a reflection of this ongoing discussion. However, schools cannot abstain from dealing with new themes which are topical in society and politics.

We try to compromise by adding or integrating the new themes as shown under C-1.5. It will depend on the schools themselves how deeply they delve into the new themes. Quite frequently, local conditions will offer possibilities. For instance, schools can talk about peace problems when there are asylum-seekers from countries like Bosnia or the Kosovo. They can deal with environmental problems when there is flooding of the Danube or rivers in China etc.

Section D

Curriculum Implementation

D-1. Teacher Professional Development

D-1.1 Pre-service teacher development

D-1.1.1 Yes. All teachers must have a University-entrance qualification (Abitur), complete a full University study-programme for teaching and a subsequent seminar-based introduction into the practice of teaching, and finish each of these two stages by passing State examinations as the necessary prerequisite for employment as a teacher at any kind of school.

D-1.1.2 Yes. There is a Law on Teacher Education, and there are Examination Regulations which comprise the required contents and describe the expected competencies of future teachers.

D-1.1.3	Primary teachers	3-4 years University Abitur
	Lower sec. Teachers	3-4 years University Abitur
	Upper sec. Teachers	4-5 years University Abitur

After having finished University studies and having passed the First State Examination, future teachers have to attend a two-year preparatory seminar-based service and pass the Second State Examination before acquiring the State diploma for teaching.

The aggregated time for pre-service teacher education thus adds up to a minimum of five to six years depending on the level and type of teaching.

D-1.1.4 All teacher studies comprise

- general pedagogical studies
- studies of two specific subjects
- studies of the didactics of subjects
- proportions varying according to the level and type of teaching.

D-1.1.5 The examination requirements (which in their turn rule the study programmes) are subject to more or less regular revision and updating. Universities and specialists from the Ministry draw up proposals which are then put into force by ministerial decree. Examples for change and modernization are the introduction of media studies and information technology (as school subjects) or the inclusion of additional foreign languages(for instance Czech, Chinese, Japanese).

D-1.2 In-service teacher development programmes

D-1.2.1 All teachers (like all civil servants) are expected to take a regular interest in updating their competencies. Until now, there is no formal requirement for in-service training except when new methods or contents (as e.g. computer education) are being introduced or the teacher has been appointed to a higher function(e.g. principal, school inspector).

D-1.2.2 Bavaria has set up an Academy for the In-service Training of Teachers and Staff Management. The Academy offers all kinds of courses free of charge to teachers within the State school system. It also trains "multipliers" whose duty it is to organize courses on the regional and local (school) level.

D-1.2.3 Besides the Academy described under D-1.2.2, there is a wide variety of opportunities for professional improvement. Universities offer courses for academics, there are various institutes for distant learning, teacher associations organize meetings intended for specific in-service training activities.

D-1.2.4 We expect teachers as professionals to be motivated themselves for their own professional improvement. Generally speaking, there are no salary incentives for participation in in-service training, but of course application for a higher position in the service presupposes a documented interest for professional improvement.

D-1.2.5 Curriculum changes are, as a rule, prepared and accompanied by a number of measures. The State Institute for School Education usually publishes auxiliary materials for the teachers, the Academy for the In-Service Training of Teachers will offer courses on its regular programme, and in the case of wide-scale innovation it has become the rule to set up a state-wide in-service training scheme.

D-2. Resource Support

D-2.1 Development and supply of textbooks

In Bavaria/Germany there is a free textbook market. Publishing houses produce textbooks and present them to the Education Ministries for examination and admission. In Bavaria, as in most of the German laender, textbooks (with very few exceptions) are free of charge. The average duration of use is something like five years. Then the books can be replaced, and this is usually a good opportunity for the schools either to change textbooks or to get modernized editions.

The Ministry issues a list of the approved textbooks and schools can select the books they prefer. Generally speaking, there are between three to six different sets of textbooks for one subject in one grade, so schools have a variety to choose from. This also ensures a certain diversity of methods since textbook authors obviously will employ different approaches to the same subjects.

D-2.2 On the national level, run by the 16 states, there exists an Institute for Films and Visual Aids which produces all kinds of support materials for the schools, as e.g. movie films, videos, colour slide series etc.

Bavaria as well as the other laender also have Central Agencies for the Distribution of Audiovisual Aids to the schools. In Bavaria we also have a Central Agency for Computer Education which tests computer software that is produced commercially and makes recommendations as to their use in schools.

D-2.3 As was already pointed out, government does not produce teaching materials. Support materials for teachers, however, are frequently produced by the above-mentioned government agencies to offer help for the introduction of new curricula and to increase teachers' competencies in teaching and learning theories and practices.

D-2.4 The Law on Free Learning Materials provides for textbooks to be bought by the schools and be loaned to the pupils; other learning materials have to be procured by the parents. See also D-2.1.

D-3. Community Support

D-3.1 To what extent are members of the community supporting curriculum implementation?

In the network of curriculum development and implementation which has been described in the preceding chapters there is place for involvement by the representatives of parents and other groups of the community at large. Individual involvement will often happen at the school level.

Many schools have close relations with neighbouring institutions as e.g. health services, the police, theatres, environmental stations, or firms which will be ready to offer support of all kinds, thus adding an important element of "reality" into the school curriculum and schools' activities.

D-4. Classroom Strategies

D-4.1 What strategies are employed to introduce teachers to new teaching approaches to support the aims of the curriculum?

The State Institute for School Education and the Academy for the In-service Training of Teachers are the agents for developing and disseminating appropriate teaching methods to support curriculum innovation.

D-4.2 What are the major issues and concerns about teaching methods?

As was already pointed out in the preceding chapters, there are two main strands of development:

- Cross-curricular thinking and teaching should be intensified.
- The idea of life-long learning makes it imperative that pupils and students should be better introduced into self-directed learning.

Cross-curricular teaching requires a growing awareness with subject teachers to look across the borders of their own subjects and seek cooperation with other teachers.

Self-directed learning of pupils calls for new methods of teaching beside the traditional in-front-of-the class teaching: group work, project work, independent work by pupils as well as a change in traditional roles of the teacher toward an organizer and facilitator of learning processes. It is a tremendous task to achieve this change in teachers' habitual roles and requires a great deal of innovative in-service training.

D-5. School-based Student Assessment

D-5.1 How is classroom assessment data collected on the performance of each student?

Pupils in Bavarian schools are assessed for their oral and written performance. The marks given range from 1 = very good to 6 = insufficient. Teachers are obliged to regularly document the oral participation and performance. Written tests produced by the teacher are administered once or twice per semester. The final assessment for the annual certificate of promotion or non-promotion weights the written and the oral

performance 2:1 or 1:1 according to the school level and subject.

Exceptions from this general description apply to the first two grades of primary school where verbalized certificates are produced and to the last two grades of upper secondary general schools (Gymnasien) where there is a point credit system.

There are practically no adaptations of the described system with regard to curriculum changes. One exception is with foreign languages where more emphasis is laid on oral performance than before.

D-5.2 What are the main purposes of assessment at the school level?

Diagnosis of the learning, assessment for promotion, reporting to the parents are of equal importance.

D-5.3 How is student performance rated?

On a scale from 1 (very good) to 6 (insufficient). This rating system is applied all over the 16 laender in Germany so that school leaving certificates can be recognized nation-wide. The point credit system which is used in the last two grades of the Gymnasium extends from 0 to 15 points.

D-5.4 Does your country have any external examination system?

There are external examinations at the end of the various types of secondary schools. Exam papers are set on the state level and have to be taken by all the pupils. Within each subject there are, however, options for the schools and/or the students so that the exam requirements can better be geared to the preparation in the classroom.

We claim that central examinations have a high degree of objectivity and think this to be necessary in a system where final certificates are usually connected with entrance qualifications for ensuing institutions, e.g. for entrance into higher education.

It is evident that exam requirements exert a considerable influence on the curriculum and the teaching that goes before. Ideally, there is a close interaction between the two systems. We try to achieve this by a mixed composition of the commissions which draw up the exam papers, staffing them with curriculum experts as well as active teachers. In this way changes in the curriculum can also lead to changes in the way exam papers are set.

D-6. Barriers and Constraints to Effective Curriculum Implementation

D-6.1 Describe the difficulties/barriers that have been identified as constraints to effective implementation.

The psychological barriers to change are very often more difficult to overcome than material obstacles. It is a natural reaction that almost every curriculum change and its implementation will meet with prejudices and mental reservations from many of those concerned. It is therefore imperative to use strategies which will explain the necessity of the envisaged changes and the advantages that both teachers and students may draw from the reform. You cannot order reform, you must convince people of it.

Section E

Curriculum Monitoring and Evaluation

E-1. Monitoring and Evaluation

E-1.1 What processes are used to monitor curriculum implementation?

The State Institute for School Education is asked to undertake investigation by questionnaire and to organize conferences where principals and teachers from practice can report about their experiences with the new curricula. There is also a regular feedback from school inspectors. In-service training courses, too,

offer a lot of information about practical difficulties incurred and needs for support. Taken as a whole, there is large body of relevant information coming back to the Ministry which would call for action or correction.

E-2. Curriculum Evaluation

E-2.1 Describe the mechanisms/major tools used for curricular evaluation?

Large-scale reforms are often tested in pilot schools which are supported and monitored by educational experts. Usually the State Institute for School Education is assigned the task of scientific investigation. Within the Institute there is a section made up of experts from psychology, sociology and education with experience in empirical methods. The reports are used in the further process of decision-making.

E-2.2 How are results of the national curriculum evaluation used?

The reports coming from different sources are discussed within the Ministry and quite often are presented to the State Advisory School Council for further discussion. In cases of particular importance Parliament has asked to be informed and the reports are put on the agenda of the relevant Parliamentary committee.

E-3. Monitoring of Local Curriculum

E-3.1. If you have a locally controlled curriculum component, is there any monitoring of this?

Schools can decide on elective subjects or some other school-based activities. There is, however, no control of these.

E-4. Student Assessment for Curriculum Monitoring

E-4.1 What types of assessment are used to evaluate the impact of curriculum on student achievement?

Central examinations for students who graduate from school are the principal means of assessment. Examinations results are collected at the level of the Ministry, average results for overall performance of schools and the performance in individual subjects are calculated and then fed back to the schools so that they are in a position to gauge their performance with regard to state-wide average. In cases of considerable deviation school inspectors will be asked to discuss such problems with the school principals. School averages are, however, never published.

E-5. Research and Curriculum Development

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education?

As already pointed out, curriculum performance at the school level and central examinations are considered as interdependent factors which enable the Ministry to form a fairly adequate judgement on the overall quality of the school system. Therefore, no need was seen to conduct specific research here. TIMMS, however, has already triggered new thoughts and pilot action in this field.

India

B. P. Khandelwal

B. Curriculum Policies

B.1 Background

B.1.1. In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.

School education is a sector of fundamental importance to both individual and national development processes. The rapid growth of knowledge and the emergence of new means and methods of communication make it essential that the curriculum at the school stage is renewed continuously to respond to the future challenges. In order to fulfil its role as a vehicle for social change, the school curriculum has to be dynamic enough to respond to the changing national priorities and long terms development goals of the country.

For maintaining its relevance to the societal needs and personal needs of learners, the school curriculum has to continuously undergo the process of renewal keeping in view the experiences gained in the past and the concerns and imperatives that have emerged in the light of changing national development goals and educational priorities. Some of the emerging concerns and imperatives which have a bearing on the school curriculum include the following.

Socio-Cultural, Political and Economic Considerations:

Education as a powerful instrument of human resource development should help in the process of desired social transformation and the achievement of national goals and priorities. Thus the content and process of education is carefully planned so as to develop in the learners appropriate knowledge, skills, attitudes and values relevant in the context of social, economic, political and environmental goals in the local, national and global perspectives. The emerging concerns and imperatives of this nature, relevant in the context of school education include the following:

Equality of Education and Opportunity

The design of the curriculum and its transaction focuses more on educational effects or learning outcomes and their equalization among children belonging to different social, economic and cultural background. The concept of equality of educational opportunity is strengthened through a broad common base laid down at the primary, upper primary and secondary stages of education. The curriculum creates an awareness of the inherent equality of all with a view to removing prejudices and complexes transmitted through the social environment and the accident of birth. The curriculum and its transaction takes note of the special requirements of the first generation learners who constitute a large proportion of the school going children in our country. The curriculum provides for new methodologies for developing compensatory and remedial measures in education to suit the needs of the deprived, the disadvantaged and the disabled so that they could be brought on par with others as early as possible. Similarly, without making any discrimination on the basis of sex, the curriculum aims at bringing girls and boys on par. It ensures that all pupils irrespective of caste, creed, location or sex have access to education of a comparable quality.

Preservation of Cultural Heritage

The cultural components in the school curriculum, therefore, need to be reoriented and education and culture need to be interwoven in order to overcome the alienation of the educated from the cultural traditions of the country. The compositeness of our culture and unity in diversity which is the main theme of our national unity is reflected in the content and processes of education at all stages of school education. The process of education is characterised by efforts to promote culture through education and education through culture.

Constitutional Obligations

The Constitution of India visualises development of a pluralistic open society based on the principles of equality and social justice. It indicates the nation's resolve to develop a State which is socialistic, secular and democratic in nature. The school curriculum through its content and processes consciously reflects the constitutional obligations. It plays an important role in preparing the pupils for assuming their roles as constructive and responsible citizens.

Strengthening of National Identity and Unity

This necessitates inclusion of specific content in the school curriculum designed to nurture national identity. The curriculum as a whole helps in promoting development in the pupils of a profound sense of patriotism, non-sectarian attitudes, capacity for tolerating differences arising out of caste, religion, region, languages, sex, etc. and ability to choose between alternate value systems, all directed to the sustained pursuit of unity and integrity of the country.

Character Building and Inculcation of Values

The growing concern over the erosion of values and an increasing cynicism in the society highlights the need to make readjustments in the curriculum in order to make education a forceful tool for the cultivation of social and moral values. Value education, therefore, is made an integral part of the school curriculum. In a culturally pluralistic society like that of ours, value education has to be directed to foster among children universal and eternal values, oriented towards the unity and integration of the people of India. The content of value education is drawn from various sources - national goals, universal perceptions, ethical considerations and character building. .

Global Perspective

The school curriculum, while enabling the pupil to root oneself in the abiding national cultural traditions and value frame, also enables him/her to learn and appreciate the richness and to see himself/herself as a member of the new and emerging international community of mankind.

Protection of the Environment and Conservation of Natural Resources

The school curriculum highlights the measures for protection and care of the environment, prevention of pollution and conservation of energy. It also highlights the interdependence between the material environment and the plant and animal (including human) life for survival, growth and development. The significance of renewable and non-conventional energy resources is also form an important component of the curriculum.

Observance of Small Family Norm

In the context of the increasing emphasis on human resource development, population education components appropriate to the pupils of different age-groups need to be reflected in the curriculum at different stages of school education. These components are integrated with topics and units in all subject areas. Environmental education, energy management and population education are to be seen as complementary to one another and they are adequately reflected in the curriculum.

B.1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

General Objectives of Education

School curriculum, on the whole, aims at enabling the learners to acquire knowledge, develop concepts, and inculcate skills, attitudes, values and habits conducive to the all-round development of their personality and commensurate with the social, cultural, economic and environmental realities at national and international levels. School curriculum, therefore, helps to promote development in the learner of:

- Language abilities and communication skills needed for social living and further learning;
- Competencies that facilitate mathematical operations and their applications in day-to-day life and learning;
- Knowledge, attitudes and habits necessary for keeping physically fit and strong in conformity with normal developmental pattern
- A proper understanding about the role and importance of Sex in human life, and healthy attitude towards sex and members of opposite sex;
- Qualities that make a man socially effective and happy in various social settings such as friendliness, cooperativeness, compassion, self-discipline, self-criticism, self-control, humour, courage, love for social justice, self control, etc.
- Moral and character values such as honesty, truthfulness, dependability, courtesy, fearlessness, compassion, etc.
- Pre-vocational/vocational skills, willingness to work hard, entrepreneurship and dignity of manual work necessary for increased productivity and job satisfaction;
- Ability to appreciate and discover beauty in various life situations and integrate it into one's own personality;
- Understanding of the environment and its limited resources and the need for conservation of natural resources and energy;
- Appreciation of various consequences of large families and over population and need of checking population growth;

- Understanding of the diverse cultural and social systems of people living in different parts of the country and the country's composite cultural heritage;
- Appreciation for the need of a balanced synthesis between the change-oriented technologies and the continuity of country's cultural heritage;
- Knowledge of national symbols and desire and determination to uphold the ideals of national identity and unity;
- Capability of appreciating and tolerating differences and diversities of various sorts and the capacity to choose between alternative value systems;
- An awareness of the inherent equality of all and need of global fraternity with a strong commitment to humane values and to social justice;
- Scientific temper characterised by spirit of inquiry, courage to question and objectivity leading to elimination of obscurantism, superstition and fatalism;
- Knowledge of scientific methods of inquiry and its use in solving problems;
- Appreciation of sacrifices and contributions made by the freedom fighters and social workers in the country's freedom struggle and social regeneration, and readiness to follow their ideals;
- Appreciation of and readiness to practice in life the national goals of socialism, secularism, democracy and non-violence.
- Divergent and independent thinking and ability to discover new relationships and combinations;
- Qualities and characteristics necessary for self-learning and for life-long learning leading to creation of a learning society.

B.1.3. What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

There is supreme body in the country known as Central Advisory Board of Education (CABE) which comprises of the ministers of education of all the States and Union Territory Administrations in the country to deliberate on the basic policies in education at all levels. A National Curriculum Framework has been approved, based on National Policy on Education 1986/1992 and its accompanying Programme of Action. This framework serves as a basic guidelines within which all states can formulate their need based curricula with built-in flexibility to accommodate local context. There is no fixed curriculum prescribed for the

country. This is so because the diversity of a country like India with multiplicity of languages and cultures warrant oneness within the broad framework.

Medium of Instruction:

The medium of instruction is a crucial question which has an important bearing on the quality of curriculum transaction. It is widely recognised that mother tongue is the child's most natural medium of communication. The medium of instruction is, therefore the mother tongue. In the case of learners whose mother tongue is also the language of the region, the medium of instruction at the elementary and secondary stages is the regional language. In the case of those whose mother tongue is different from the regional language, the mother tongue may be used as medium during the first two years of primary education, and the regional language used subsequently.

Instructional Time:

The effectiveness and the quality of curriculum transaction is also dependent upon the availability of adequate instructional time. All possible efforts are made to ensure that the stipulated number of working days are available to schools. Loss of instructional time due to unspecified reasons is minimized through better educational management. After taking into account the number of days required for holding terminal examinations, school functions, etc. at least 200 days in a year are available for effective instruction.

An early childhood education centre functions for three hours a day. A primary school functions for five hours a day out of which four hours are available for instructional work. For the upper primary and secondary schools, the duration of a school day is six hours, out of which five hours are kept for instructional work, and the rest utilised for morning assembly, recess, etc. The duration of a class period is around 40 minutes.

B.2 Curriculum change

B.2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.

The last National Policy on Education was formulated by the country in 1986. It was based on nationwide debate on the existing scenario in education which was documented in a material called "Challenge of Education: Policy Perspective". This is the document upon which is based the formulation of National Policy on Education. One of the unique features of this policy was that it was detailed in Programme of Action approved by the Parliament. The major concerns of the Policy in reference to School education are enumerated below:

- (i) Emphasis on the development of human resources for the realisation of the national goals of development.
- (ii) Broad-based general education to all learners at the elementary (primary and upper primary) secondary stages.
- (iii) A common scheme of studies for elementary and secondary stages.
- (iv) The common core components comprising the following:

- The history of India's freedom movement;
 - The constitutional obligations;
 - Content essential to nurture national identity:
 - India's common cultural heritage
 - Egalitarianism, democracy, and secularism;
 - Equality of the sexes;
 - Protection of the environment;
 - Removal of social barriers;
 - Observance of the small family norm; and
 - Inculcation of the scientific temper.
- (v) Emphasis on defining Minimum Learning Outcomes (MLOs) for each area of learning at all stages of education.
 - (vi) Provision for flexibility in terms of selection of content/components and learning experiences which would facilitate the attainment of minimum learning outcomes laid down for each stage of school education.
 - (vii) Emphasis on child-centred and activity-based processes rather than the teacher-centred approach during the transaction of curriculum.
 - (viii) Recasting of the examination system and introduction of continuous and comprehensive evaluation that incorporates both scholastic and non-scholastic aspects of education spread over the total span of instructional time.
 - (ix) Establishment of an appropriate machinery, such as a National Testing Service (NTS) for the selection, and the development of norms of comparable competence across the nation.
 - (x) Applicability of the curriculum to all learners, irrespective of their modes/channels of learning in order to ensure comparability of attainment and to facilitate horizontal and vertical mobility of the learners.
 - (xi) Provision of essential facilities for effective transaction of curriculum in all schools/non-formal learning centres.

The policy underwent a revision in 1992 through a Committee under Acharya Ramamurthy which brought out a revised version titled "Education for Human Resource Development." The National Policy of Education with modification undertaken in 1992 is the latest reference document for the educational development of the country. Recently there have been considerable changes that have been further brought about keeping in view the development in information and communication technology. There is now an Information Technology Action Plan developed in the country in 1998 which is under discussion for implementation.

B.2.2. What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for

curriculum development in the next five to ten years, such as: globalisation; information technology; communication; and national/cultural identity?

The direction towards revamping of national school curriculum will be based on the experience of implementing the existing policy and identification of various areas which either remained unimplemented or partially implemented. Areas mentioned in this connection are as follows:

1. Minimum Levels of Learning (MLLs).
2. Issues of Gender Equality
4. Integration of core component of the National Curriculum Framework comprising the following as listed earlier.

B.3 *Curriculum development processes*

B.3.1 Is your country's system of curriculum development centralised, partially centralised or decentralised? Please explain your answer.

The country's system of curriculum development is based on national curricular framework which defines the core and other components which are flexible. Education is a concurrent subject meaning thereby that it has a concern both of the Centre and the States. This constitutional amendment of concurrency was brought about in 1976. Responsibility, however, essentially remains with the state with the centre performing a partnership role in providing strength and steady support of academic interventions. Thus, curriculum development process is not centralised nationally. It may be said to be partially centralised because in each state there is a curriculum development agency responsible for formulation and development of curricula.

B.3.2. Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutions, parents, non-governmental agencies, private companies etc.

The National Council of Educational Research and Training, NCERT is the national apex research institutions which was set up in 1961 as an autonomous body under the Government of India. Its mandate is to assist and advise the Government of India in the formulation and implementation of policies and programmes in the field of school education. This body evolves national consensus through seminars, workshops and conferences involving state level educational functionaries and concentrates in the formulation of frameworks. At the state level each state has State Council of Educational Research and Training (SCERT) which is a counterpart of the NCERT.

B.3.3. In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc.) accommodated in the decision making processes? Please give some recent specific examples.

The decisions regarding curriculum design are essentially done by professional bodies such as NCERT and SCERTs in consultation with School Boards. In the process of

evolving curriculum, considerable amount of participation from stake holders including professional associations of teachers, teachers themselves is involved. But the participation of parents and students in curriculum development is not so far seen though it would be equally desirable. As mentioned earlier, "Challenge of Education: A Policy Perspective" provided opportunities to all segments of society to express their views, suggestions and concerns in education which later found a place in the National Policy on Education.

B.3.4. In what way does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.

While the National Curriculum frame work is developed by the N.C.E.R.T., the State Board of School Education and the State Department of Education are free to adopt or adapt it to suit there specific needs. This ensures unity (of the core content) and diversity (of local specificity).

The cultural diversity of the country is reflected in our curricular concerns. The content of curriculum do emphasise this aspect. We have a large section of tribal population and the education of the children of these groups have implications not only for their language but also cultural settings in which these children grow. There are now local specific curricula which are more appropriate to the learning environment of these children.

B.3.5. Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.

A "Persons with Disability Act 1995" was passed by the Government of India to express its commitment towards the education of children with disabilities. There are several aspects of this Act which deal with different aspects of disabilities. The policy is to adopt integrated education of disabled children in normal schools.

C. Curriculum Design

C.1 Curriculum Organization

C.1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

The basic approach to curriculum design is based on National Curriculum Framework. The Framework is further elaborated into syllabus outlines stating aims and objectives of each areas of curriculum. Based on the syllabus outlines textbooks are developed and other supplementary instructional materials are also brought out. Generally the syllabus content, broad objectives, concepts and subconcepts. As a consequence of NPE 86/92, at the primary level Minimum Levels of Learning (MLLs) were formulated. These are competencies which are expected to be the end products of the systems of instruction. They are not the syllabuses but only indicators of performance levels towards which curriculum transactions should be undertaken. It was expected to specify these comptencies for all stages of school education and in all subjects but this work has been accomplished only up to the primary stage. Our experience with implementing Minimum Levels of Learning are varied. Very

recently the NCERT has opened a debate on this subject and has brought out documents related to Primary Curriculum which spell out the main concern which can form the basis of curriculum renewal.

C.1.2 Please describe whether your curriculum is mainly designed to:

- be implemented by teachers as written or;
- be interpreted by teachers and implemented with variations or;
- give teachers total freedom to create the curriculum or;
- some combination of the above

Please give examples to illustrate your answer.

The implementation of the curriculum in the country cannot be defined by any single directive or approach. It is, in fact, a combination of more than one approaches. Though teacher is the key factor in the implementation of curriculum but his innovation and imagination cannot be discounted. In many cases curriculum is interpreted by teachers and implemented with the variations considered appropriate for better learning on the part of pupils. If a teacher is not satisfied with the curriculum as reflected in the written document there is nothing to prevent the teacher from modifying the same to suit the class room realities. In fact, the whole exercise of curriculum organisation is a mix of all the above strategies.

C.1.3 Basic structure of the current and/or future school curriculum;

Please give the range of subjects offered in your country in years 1-9 / grades 1 to 9 giving specific information on the following matters:

- indicate what subjects are compulsory or optional;
- indicate the time allocation for each subject (in hours per year) Note if your country does not have a pre-set time allocation either estimate or state 'not available';
- how many hours a week are allocated to co-curricula (or extra curricula) activities? Are these compulsory or elective?

Subjects		GRADE / YEAR								
		1	2	3	4	5	6	7	8	9
Compulsory	Language									
	Mathematics									
	Environment Studies									
	Science									
	Social Science									
	Work Experience									
	Art Education									
	Health & Physical Education									
Optional	No optional									
Total										

C.1.4 Is curriculum integration will a major issue in your country? Please give specific examples to illustrate your answer.

The concept of integration in school curriculum has been the subject of discussion at the primary (I-V) level where this concept has been better appreciated and even implemented. The holistic development of the child is paramount at this stage. It is not learning of subjects but the processes cutting across the subjects which are emphasised. Work experience, Art and Aesthetics, Health and Physical Education are expected to be at the centre stage for providing integration to the learning of scholastic areas like languages, mathematics, and environmental studies.

As we move to the upper primary (VI-VIII) stage there have been questions on integration in science and social sciences. Attempts have been made to teach science as an integrated subject with a unified view and this approach has been generally followed up to the Xth Class. It has not been possible to succeed in bringing about integration amongst social science areas and they are still being taught separately like history, geography, civics/political science and economics. Attempts have been made to develop integrated perspectives but not with the desired success.

C.1.5 **Specific Curriculum Areas**

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas, at what level schooling they are taught, etc.)

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated area, at what level schooling they are taught, etc.)

Themes/Areas	How your curriculum deals with the theme area	Level of Schooling
Values/international understanding (e.g. moral/ethical issues etc.	Through curricular areas; also separately as moral science	1 to 10
Education for the world of work	Through Work Experience/Socially Useful Productive Work	1 to 10
Foreign languages	English is compulsory from Classes 6 to 10	1 to 10
Computer/information technology	Introduced as a subject outside curriculum; as an elective in grade 1 to 12	1 to 10
Health education (e.g. diet, drugs, HIV/Aids)	Integrated in school curriculum	1 to 10
Environmental education	Integrated in School Curriculum	1 to 10

C.1.6 Curriculum Coverage

C.1.6.1 What are the issues in your country with regard to pressure on the coverage of the curriculum?

A few years ago a study was conducted on curriculum load. Some of the major findings of the study are as follows:

- Load arising out of language comprehensibility
- Inadequacy of instructional time
- Pressure of information content
- Teacher professional development

C.1.6.2 What steps, if any, are being taken to address these concerns?

Recently there have been lot of pressures on inclusion of several areas from school curriculum. Every human concerns has sought to be making competing claims for inclusion. For example, areas such as the following have been impinging on the curriculum:

Consumer Education, Productive Education, Education in Human rights, Remote sensing, safety education, Standards Education, Water management and conservation, Value Education to name a few. As the time available for curriculum transaction is but limited some adjustments become necessary to be made.

D. Curriculum Implementation

D.1.1.1. Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

The role of the teachers is pivotal to any curriculum implementation. In our National Policy on Education, it is mentioned that no people can rise above the level of their teachers. In fact the expectation of the teacher go far beyond the concerns of the class room particularly in a situation like India where universalisation of elementary education is still not achieved. Teacher professional development is manifest in the design of pre-service teacher education qualification for those who wish to tech in the school sector. The requirement of eligibility for pre-service teacher education at different levels is as follows:

- a) Primary level
 - 2 year after class 12
- b) Upper Primary level
 - 2 year after class 12
 - Also 1 year after BA/BSc.
- c) Secondary level
 - 1 year after BA/B.Sc.
- d) Higher Secondary level
 - 1 year after MA/M.Sc.

In 1995, by an Act of Parliament, a statutory body known as the National Council for Teacher Education (NCTE) was set up to maintain quality of standards and norms in teacher education. This organisation is an apex body to enforce quality control in curricula and other concerns in teacher education.

D.1.1.2 Is there a prescribed national curriculum/guidelines/framework for pre-service teacher education in your country?

There is no prescribed national curriculum for pre-service teacher education. However, there are guidelines and framework for preservice teacher education developed by the NCTE. These guidelines have to be followed by the various educational agencies, for example, State Department of Education, universities otherwise the NCTE can derecognize such courses and institutions.

Our country has passed through a period of debates and discussions on following correspondence courses for the first professional degree in teacher education. Started with a noble ideal in the four Regional Institutes of Education of the NCERT, to clear the backlog of untrained secondary school teachers, the programme was profesisonally very sound as it provided actual contact of two months summer vacations preceded and followed by correspondence. It was a snadwich programme with built-in flexibility necessary for teacher development programme. Somehow certain development in the country saw the replication of this good model not in its original form but in distortions which held to dilution of the quality of teacher education. The NCTE has now put certain demanding conditions on institution running such distance education programmes in teacher education.

D.1.1.3 What is your country's programme for pre-service teacher development?

The suggested eligibility qualifications and duration for various teacher education programmes are summarised as follows:

Suggested Eligibility Qualifications and Duration for Teacher Education

STAGE OF EDUCATION	ACADEMIC QUALIFICATIONS OF TEACHERS	PROFESSIONAL QUALIFICATIONS OF TEACHERS		
		TRAINING	DURATION	ELIGIBILITY CRITERIA
PRE-PRIMARY	SECONDARY	NURSERY TRG	1 Year	SECONDARY
PRIMARY I-V	SECONDARY	ELE. TEACHER TRG (LIKE JBT)	1 or 2 Year	SECONDARY
UPPER PRIMARY VI-VIII	BA/BSc	BT/BEd.	1 Year	BA/BSc./BCom
SECONDARY IX-X	BA/BSc/BCom	BT/BEd.	1 Year	BA/BSc./BCom
SENIOR SECONDARY XI-XII	MA/MSc/MCom	BT/BEd.	1 Year	BA/BSc/BCom

Weightages for various components of the different course structures my be arranged so as to give total weightage of 40% to theory, 20% to pedagogical analysis of school subjects, 20% to practice teaching and 20% to other practical work in accordance with time allocation and scheme of examination. This distribution, however, would not be applicable to pre-primary teacher education programmes for which theory and practice would have 30% and 7-% weightages respectively.

There have been a strong demand from a large section of teacher educators and educationists to increase the duration of B.Ed. course from one year to two years. However,

change-over from one year to two years' duration may require two-three years preparatory time. It is, therefore, recommended that the two year B.Ed. courses may be instituted after careful planning, development of detailed curriculum, suitable augmentation of infrastructure and necessary orientation of teacher educators during the next two/three years. During the intervening period, the suggested general teacher education programmes may be offered. However, if some institutions have the necessary infrastructure, staff and other resources and are willing to start these two year programmes early, they need to be encouraged and assisted.

D.1.1.4 Pre-service teacher education programme usually include components of education foundations (e.g. sociology of education, history of education, general methods courses (e.g. educational technology, classroom, management, assessment) subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practicum. Please describe the general components of the pre-service teacher education programme in your country.

The general components of pre service teacher education programme for the Secondary Stage can be broadly elaborated as follows:

Teacher education programme at the secondary stage, like at all other stages, will include theory, practice teaching in schools and practical work in the light of context, concerns profile of teachers and general and specific objectives.

Specific Objectives: The specific objectives at this stage may be to:

- Enable the prospective teachers to understand the nature, purpose and philosophy of secondary education;
- Develop among teachers an understanding of the psychology of their pupils;
- Enable them to understand the process of socialisation
- Equip them to acquire competencies relevant to stage specific pedagogy, curriculum development, its transaction and evaluation;
- Enable them to make pedagogical analysis of the subjects they are teach at the secondary stage;
- Develop skills for guidance and counseling;
- Enable them to foster creative thinking among pupils for reconstruction of knowledge;
- Acquaint them with factors and forces affecting educational system and classroom situation;
- Acquaint them with educational needs of special groups of pupils;
- Enable them to utilise community resources as educational inputs;
- Develop communication skills and use modern information technology for school purposes;
- Develop aesthetic sensibilities; and
- Acquaint them with research in education including action research

Curriculum Framework Theory

- Emerging Indian Society
- Secondary Education in India – status, problems and issues
- Psychology of Teaching and Learning
- Guidance and Counselling
- Assessment, Evaluation and Remediation
- Curriculum Design and Development
- School Management

- Comparative Education
- Action Research

Optional Courses – any two of the following:

- Pre-School Education
- Elementary Education
- Educational Technology
- Vocational Education
- Adult Education
- Non-Formal Education
- Distance Education
- Environmental Education
- Educational Evaluation
- Computer Education
- Education of Children with Special Needs
- Health and Physical Education
- History and Problems of Education
- Population Education

Practice Teaching

- Pedagogical analysis of two school teaching subjects
- Practice teaching in schools
- Observation of Model Lessons

Practical work

- Internship and school experiences
- Field work with community based programmes
- Creativity and personality development programmes
- Work education
- Sessional/practical work
- Physical education games and sports and other school activities
- Aesthetic development programmes and activities
- Action research studies

D1.1.5 Changes in the National School curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education? Please give specific examples to illustrate your answer.

The National Curriculum Framework for school education has undergone substantial changes over time. The latest curriculum framework being the one which was evolved after the National Policy of Education in 1986, ideally the school curriculum and the teacher education curriculum should gel with each other. Our experience in the country has shown that there have been more deviations than concordance. The pre-service teacher education programmes have been largely conducted in isolation of actual expectations of the school curriculum. Pre-service teacher education provides more of general training rather than in the specifics of various concepts and subconcepts of each subject of school curriculum. This is being sought to be corrected through in-service teacher education.

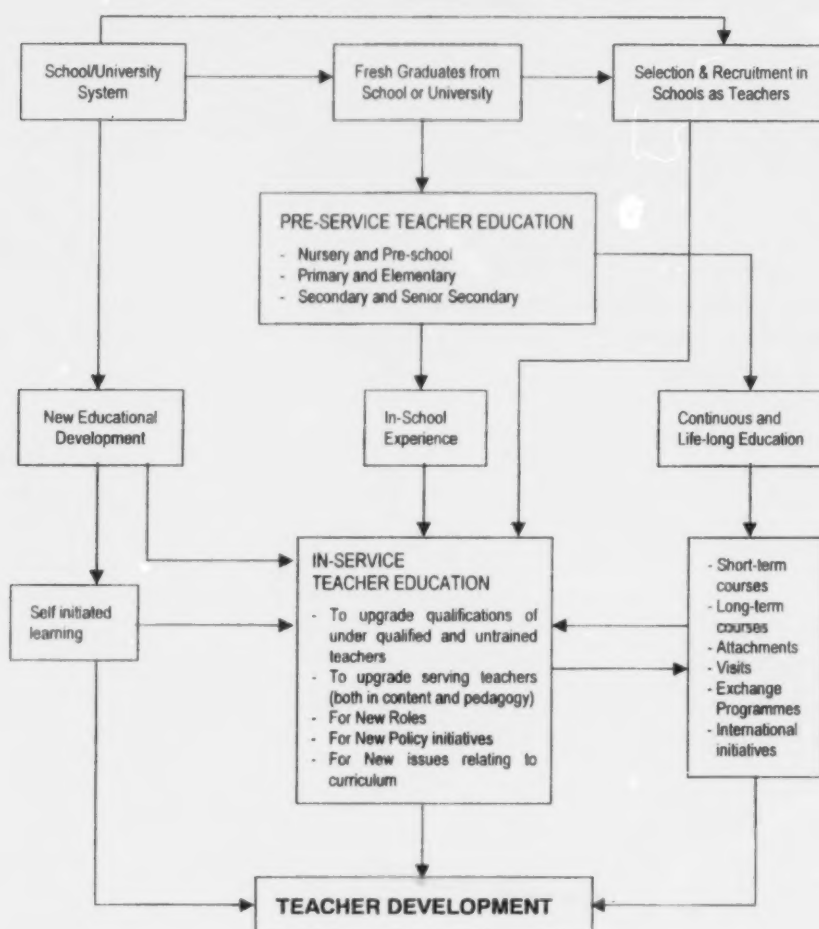
D.1.2. In-service teacher development programmes

D.1.2.1 Is in-service professional development for teachers compulsory or voluntary?

In service professional development for teachers is indeed important for better results from school programmes. But such professional development programmes are not totally compulsory. However, there have been efforts to organise inservice education by deputing teachers at state expenses to various programmes.

A versatile innovation attempted by the country for continuous professional development of teachers was the directives in the National Policy of Education of 1986. The setting up of District Institutes of Education and Training (DIETs) was a great step towards institutionalising inservice teacher development. The DIETs is a nodal institution at the district level chartered with the responsibility of total educational development of the district. It is strategy of decentralizing of educational management for which 73rd and 74th constitutional amendments were effected. Similar inservice training facilities have been created in Colleges of Teacher Education (CTEs), Institute of Advanced Studies in Education (IASEs), State Council's of Educational Research and Training (SCERTs). Components of Teacher Development are given in the diagram.

COMPONENTS OF TEACHER DEVELOPMENT



D.1.2.2 Are there any financial support for teachers for their inservice professional development? If so, who pays and for what kind of inservice professional development? If so, who pays and for what kind of inservice programmes?

The financial support of teachers for their inservice professional development is in the form of paying their TA/DA for deputation to attend programmes, support for providing teaching learning materials. It is rarely that teachers have to pay from their pocket for attending inservice programmes.

D.1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?

Several professional development opportunities are available for teachers. Some of these have been mentioned in D.1.2.2.

D.1.2.4 Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?

The major incentives to participate in inservice training is connected with their crossing of efficiency bar in their pay scales. Of course, incentives in the form of personal improvement of qualification is inherently built in the whole scheme of professional development.

D.1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for inservice training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/voluntary inservice training provided, or teacher guides to the curriculum published etc.

Most of the training programmes are based on training materials developed by institutions for sharing with the teachers. They are generally supplied free of cost. At times reference books were also provided. Audio visual aids, and another support materials for improving the quality of teaching learning are the part of the strategies being used for inservice training to ensure the teachers effectively implement the new curricular initiatives in the schools.

D. 2 Resource Support

D.2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:

- Government directly sponsoring the writing, production, and distribution of text books
- Government approving a particular selection of textbooks
- The choice of textbooks entirely made by schools and/or teachers
- Other methods – please specify

Please indicate which of the above apply to your country.

A diverse range of materials to support the implementation of the new curricula have been attempted. This material support includes textbooks, audio-video software, computer software, teacher guides and multi-media packages. The government has nationalised system of textbooks for the school stage, particularly the first eight years of education. Curriculum development agencies such as the NCERT at the national level and the SCERTs at the State level besides Central Board of Secondary Education (CBSE) and other State Boards of School Education undertake writing of textbooks and other related materials as well. There are defined mechanism for production and distribution of textbooks through textbook corporations in different states. Since these activities are largely with the government these books are prescribed. In certain cases where government finds relevant books by other publishers there are mechanisms of scrutinizing them before their recommendation. It is only in the case of private schools that the choice of textbooks is made by the school through its own mechanism involving teachers.

D.2.2 What other teaching/learning support materials are available for schools (e.g. teacher guides, video tapes, computer software, CD-Roms etc.)

The process involved in our country for the development of supplementary materials that assist in curriculum implementation are handled at the level of the NCERT, SCERTs, Boards of School Education and private enterprises.

D.2.4 How are textbooks and other material provided to students? For example: parents buy the textbook; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

The textbooks and other materials are provided to students free of cost in government schools. In private schools parents pay for the cost of textbooks of the children. Organisation like the NCERT have commitment and responsibility of bringing out such books at no-profit basis.

D.3 Community Support

D.3.1 In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO's the religious community etc.) supporting curriculum implementation? Please give specific examples.

School education in the country is largely the responsibility of the State with provision for universal free compulsory education of children upto the age of 14. There are special provisions for the education of the girl child. Nutritional support to primary education known as mid-day meal scheme is an important input of the government towards the education of children in primary school. There are also schools which are aided by the government. Some schools are run by private management which draw financial support from the government to the extent of 95 per cent commitment to salary of the teachers. Such schools are governed under the provisions of the state education acts and are not free to enforce any disciplinary proceedings against teachers without prior consultation and

involvement of the representative of the government. Article 29 and 30 of the constitution provides freedom to religious minorities to support their own schools and also impart religious instructions.

There are several community organisation which set up their own schools in different States. They do not draw any financial assistance from the government but run their own institutions on the support of philanthropic people and donors among whom are also included business houses.

D.4 Classroom Strategies

D.4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

Whereas the innovativeness of the teachers is the real determining factor for the quality of class room transactions, there are several inservice teacher training programmes which introduce teacher to new methods and materials. Such approaches and strategies include the following:

- a) Programmes under Mass Orientation of School Teachers (1986-90)
- b) Special Orientation Programme for Teachers (SOPT)
- c) School based inservice education
- d) Tele-conferencing

D.4.2. What are the major issues and concerns about teaching methods in your country?

The major issues and concerns about teaching methods relate to introduction to the new concerns of curriculum. An example is integrating core elements such as the value enshrined in the constitution in all stages and subjects of school curricula to meet with the commitments of the philosophy of curriculum.

D.5 School-based Student Assessment

D.5.1 Data is collected to assess student's performance in various ways; including the following; paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc.) and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

An important aspect of school based student assessment is the introduction of continuous comprehensive evaluation which integrates assessment of student as the progress of curriculum, maintenance of cumulative records, feedback to teachers and parents.

The scheme envisages making schools equal partners with the Board's in accessing pupil performance and competencies and for public consumption through the issue of a

separate certificate of school based evaluation covering both scholastic and non-scholastic aspect of pupil growth as a supplement to that of Board certificate of external examinations.

The certificate of school based evaluation will cover:

- a) Academic achievement
- b) Health Status
- c) Personal and social qualities
- d) Interests
- e) Attitudes and values and
- f) Proficiency in co-curriculum schools

This certificate will be issued on a format prescribed by the Board of School Education.

The Board certificate will include a footnote saying "another certificate of school based evaluation is also being issued by the school under authorization from the Board and should also be taken into consideration while judging the total personality of the student."

There is no detention policy up to class V which, however, does not mean that the upward mobility of all children is allowed without their acquiring certain expected levels of learning. But experience has shown that this approach of non-detention has not yet gelled with the concept of continuous and comprehensive evaluation.

D.5.2. There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?

The main purpose of assessment at the school level is monitoring of the learning achievement of the pupils, which is constantly shared with the parents. Also the assessment is used to understand the impact of the manner of instructions carried out by the teachers.

D.5.3. Performance can be reported as a percentage rating (e.g. 75%, 80% etc.) grade rating: (e.g. A, B, C, etc) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

The students performance is rated in various ways by various examining agencies. There are 34 Boards of school education, two of them, are Central Board of Secondary Education and another Board dealing with some minorities institutions known as Council for Indian School Certificate Examination. The results are by and large declared in terms of raw marks. However the recommendations is for the use of a 9 point scale (for grading) based on percentile.

Two of the Board CBSE and CISCE have already started giving grades and marks both in declaring results.

- D.5.4 Does your country have any external examination system? If so, at what level(s)? If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (e.g. how it might influence the aims/goals of the planned curriculum).

The country has a very well designed external examination system. There is public examination conducted by the Boards at the end of class X and also another at the end of Class XII. The certification done by the Boards is the basis of the higher education entry and also for employment. The infrastructure of the Boards is quite massive. The rating of institutions and performance of students in these examinations is directly or indirectly related to the standards maintained by the schools.

D.6 *Barriers and constraints to Effective Curriculum Implementation:*

- D.6.1. Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

The difficulties and barriers which act as constraints to effective curriculum implementation are summed up as follows:

- a) Pressure of population on schools , large classes and low teacher pupil ratio
- b) Lack of an institutionalised mechanism for in-service teacher education for effectively implementing the new curriculum whenever introduced
- c) Inadequacy of support materials

E. Curriculum Monitoring and Evaluation

E.1. *Monitoring and Evaluation*

- E.1.1. What processes are used to monitor curriculum implementation in your country?

The process to monitor curriculum implementation are generally flexibly designed. The main source of assessing how curriculum has influenced and behaved with the students is through teachers. There are periodical feedbacks, strategies adopted on the basis of which revision is admitted from time to time.

E.2 *Curriculum Evaluation*

- E.2.1. Please describe the mechanisms/major tools used in your country for curriculum evaluation?

Curriculum is conceived as an entity with the following components :

- objectives

- content
- materials and aids
- methodology
- evaluation

All these are constantly under review for purposes of renewal. The following techniques and tools are used for the purpose :-

- i) Nation wide debates and discussions for formulation of policies
- ii) Opinion surveys
- iii) Consultations With Teachers, Teacher Educators, Content Specialists, People in Business and Industry.

E.2.2. How are the results of the national curriculum evaluation used in your country?

Cycle of review of curricula is generally five years. The review studies conducted by the NCERT for the formulation of the National Curriculum automatically percolates to the states as this is adopted as such or adapted by the States.

E.3. *Monitoring of Local Curriculum*

E.3.1. In a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?

At the national level a curriculum framework is formulated. Its elaboration into development of specific curricula is generally undertaken at the level of the states. Generally the states have a prescribed curricula for all the schools under their control. Considering the vastness of the country and the plurality of its culture and languages, a meaningful education requires local specificity in the curricula. What is expected is to train the teachers to exercise freedom to innovation, using local resources to teach different aspects of curricula. This is particularly relevant for primary schooling in rural settings.

E.4. *Student Assessment for Curriculum Monitoring*

E.4.1. What types of assessment are used to evaluate impact of curriculum on student achievement? Indicate how often this occurs and at what grade level?

NCERT periodically conducts national achievement surveys at different levels of school education to evaluating the impact of the curriculum of student achievement. The last survey of assessment in respect of primary education and secondary and higher secondary level in was done in early nineties.

E.5. *Research and Curriculum Development.*

E.5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education? List the research and the key significant findings.

The major research studies undertaken in this country in curriculum development are reflected in periodical surveys of educational research conducted by the NCERT. The status reflected in the last survey in this area as major findings is given below:

The various trend in curriculum research regarding areas of learning are as follows:

1. Curriculum research in languages has in a way lost its appeal. Till 1988, it was a very strong area of curriculum research. In terms of percentage of studies, it had a weighting of 56.5., 62.0, 8.0 and 19.6 in the four surveys; for the Fifth Survey, it has sunk to a mere 4.3% (1 out of 23 studies). One hopes that this is a temporary let-up in view of its inherent importance in any curriculum. Language is a content area as well as a medium of instruction. Besides, the ongoing controversy regarding the specifics of language education can surely be expected to sustain curriculum research in language studies.
2. Research in mathematics reveals a trend of low initial activity (during the First and Second Survey periods), a spurt (during the Third and the Fourth Survey periods), and again a decline (during the Fifth Survey period) which may prove deceptive given the shifts in research priorities. The percentages for the four Surveys are 7.2, 2.8, 13.0 and 14.0 respectively. For the Fifth Survey, the figure plummets to 8.6%. In terms of overall percentage, the figure is 10.0% a mere 37 out of 370 exclusive studies.
3. Curriculum research in the sciences also reveals a mixed trend very much like research in mathematics; though in terms of sheer magnitude it comes next to research in language studies. The overall figures for science-related research are 58 (15.67%) and for language 113 (30.5%) out of a total of 370 reported studies. The percentages for the first two surveys are 5.7 and 8.4 respectively, and these rose to 23.0 (the Third Survey), and 20.5. (the Fourth Survey), the corresponding figure for the Fifth Survey being 13.04. The appearance of a study on Environmental Science can be taken as a happy development indeed. Research in this area should grow in size because of its seminal role in familiarising learners with their natural environment and especially the process that consistently supports it. The integrative process based approach in EVS should hopefully engage the researcher's attention in the coming years, especially in the mother-tongue medium teaching of EVS and the need for developing multi-media based instructional material.
4. Curriculum research in the social sciences has been a low-key affair and it continues to remain so. The percentages for the five surveys reported sequentially are 8.6, 5.6, 7.0, 9.3 and 4.3, the overall figure being 7.56. One can venture to predict

consistency in this low-key effort in the coming years as well though social sciences admittedly deserve a greater focus in curriculum research.

5. Research effort in the area of work experience, vocational, technical and agricultural education has an almost static trend. The percentages for five surveys are 2.8, 4.3, 13.0, 7.4 and 8.6, respectively. It is worthwhile to point out that the two studies reported in the present survey belong to agricultural education. Studies related to work experience have just dried up possibly because of the peripheral status accorded to it in school curriculum. Technical education too has been unable to generate any research effort.
6. No study has been reported under health and physical education. The research effort in this area has been limited to between 2% and 8%. Out of the 370 studies conducted so far, only 18 have been concerned with health and physical education, the overall percentage being 4.86. Future curriculum research in this area would continue to be marginal. The initiative for this should come primarily from teachers associated with this area of learning. The past and the present being the parents of the future, research in Health and Physical Education may take quite some time to pick up momentum.
7. Population education too, has all along been a marginal area in curriculum research. The percentages have varied between 1.4 and 8.4, the overall being 3.78 because only 14 studies have been reported in this area out of the total of 370. The trend does not promise much change.
8. Value education research has at last appeared on the scene. Even though only one study has been reported in this area, one can conjecture that this area may gain importance in the curriculum researcher's priority list. Value education research has appeared daunting to most researchers because empirical studies seem to deal at best with the surface reality of value education and its inner essential aspects seem to escape it. Qualitative research may provide a better and more effective alternative in this area.
9. General curriculum research seems poised for a quantum leap. As many as 12 out of 23 studies belong to this area. The coming years should see the addition of new themes under its rubric.
10. Nearly one third of the total Ph.D researches in India have been conducted in the area of Educational Evaluation. The most important thing about them is that they have found their way into actual implementation in improving (a) techniques and tools (b) broadening of the coverage of personality (c) scoring procedures (d) processing and analysis of results and (e) a more meaningful declaration of results. Measurement and Evaluation has therefore become comparatively more accurate, dependable and just.

Indonesia

M. Djamil Ibrahim

Section A : Background Information

The purpose of this section of the questionnaire is to collect general information about your country and its education system. Please provide the following information on your country, using 1998 figures or else those that are most recently available (please indicate year).

A-1. General Information

A-1.1 Size of Population

Year (1997)

Total	Annual population Growth rate
200,000,000	1.90%

A-1.2 Indicate the total number of children/youth in the following age groups, using the latest available data

Year (1996-1997)

Age Group	Males	Females	Total
0 - 4 yrs	11,180,300	10,801,700	21,982,000.00
5 - 9 yrs	10,693,200	10,356,500	21,049,700
10 - 14 yrs	11,918,300	11,006,600	22,924,900
15 - 19 yrs	11,265,500	10,622,700	21,888,200

A-1.3 Indicate the major ethnic and language groups in your county, as a percentage of total population

There are over 600 major ethnic groupings within Indonesia, each with their own language.

A-1.4 List the major religious groups in your country

The following are the major religious groupings in the country,: Muslim (171.056.196), Christian (11.840.820), Catholic (7.016.380), Hinduism(3.597.255), Budhism (2.014.233).

A-1.5 State the annual expenditure on education : total and as percentage on GNP (in \$US)

A-1.6 Language

A-1.6.1 What is the national and/or official language (s) of your country?

The national language is Bahasa Indonesia.

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language (s) are taught and what levels?

The official language of the school curriculum is also Bahasa Indonesia, at all education levels. However, in the earlier grades of primary school, teachers are allowed to use the local language or mother tongue for explanations.

A-2 The Education System

A-2.1 Structure

						Years (1996 – 1997)			Compulsory or Non- Compulsory
Level	Duration	Age range	Population			Percentage of relevant age Group attending school			
	In years	taught	Male	Female	Total	Male	Female	Total	
Pre-school	1	5 - 6	6,367,800	6,160,300	12,528,100			13%	NC
Elementary or Primary	6	7 - 12	13,786,600	12,830,700	26,617,300	109.3 %	110.1 %	111.6%	C
Lower Secondary	3	13 - 15	6,885,600	6,613,600	13,499,200	68 %	68.9%	69.8%	C
Upper Secondary	3	16 - 18	6,804,300	6,392,300	13,196,600			37.5%	NC

A-2.2 Class Size

Level	Average Class Size
Elementary/Primary	25
Lower Secondary	40
Upper Secondary	32

A-2.3 Teachers (academic years 1995/1996)

Level	Number of Classroom Teachers			Teacher: Student ratio
	Males	Females	Total	
Elementary/Primary	5,551,691	614,095	1,165,786	22
Lower Secondary	249,416	181,565	430,981	18
Upper Secondary *)	190,713	147,083	337,796	13

NB. *) general senior secondary sch + voc.senior secondary sch

A-2.4 Number of Schools

Level		Government	Private	Other *	Total
Elementary/Primary		140,383	10,212	24,227	174,822
Lower Secondary		9,449	11,095	9,846	30,390
Upper Secondary	General	2,552	5,513	3,392	11,457
	Vocational	723	3,238		3,961
	Specialised				
	Others				
	Total	3,275	8,751	3,392	15,418

NB. Other schools* = MORA ones (public + private)

A-2.5 Specific School Information

	Secondary		
	Primary	Lower	Upper
Number of school days per year for students	250	250	250
Division of school year e.g. quarter semester	Quarter	Quarter	Quarter
Number of instruction days per week	6	6	6
Teacher ' average number of class contact hours per week	30	18	18
Time duration per teaching period (in minutes)	G1-3=30 G4-4=40	45	45

A-3. Any other relevant background information

Please provide here any other background information that will assist in the interpretation of your country response.

Section B: Curriculum policies

B-1. Background

B-1.1 In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.

Technological innovation: adaptive changes in existing machines and productivity. The Gross Domestic Products (GDP) per capita increased from \$ 490 in 1988 to \$ 610 in 1991. Technological innovations focused on major achievements in food processing, textiles, and wood industries, chemicals and petrochemicals, pharmaceutical, oil refining, tires, cement, metals, mechanical engineering and construction, electrical engineering, household electrical appliances, and transport equipment. The technological acceleration required technological strategy, technology transfer mechanisms, and mastery of energy. Five principles were identified in relation to industrialization through technological injections namely

training, selection of appropriate technology, resolution of tangible technology problems, ability to innovate, and protection of technological capacity until it can face international competition.

Cultural-value shifts: changes in cultural axioms or values and ideas. The government's focus on enhancing the marketability through tourism of the nature-endowed richness of wild life, marine life, and the other natural resources in the country resulted to cultural-value shifts. The encouragement of preserving and enriching local arts and crafts, dances, cultural rituals and traditions in the curricular offerings like Local Content Curriculum (LCC), Communications, and Values formation was intensified.

Ecological shifts: changes in the natural ecology, catastrophic events, pollution of rivers, and natural resources, developing irritations, factory zoning, and transmigration projects are changes which directly affect the curriculum development.

Information-idea shifts: scope, quality, and manipulability of knowledge, new conceptions and how things work. The daily newspaper were 2.8 % per 100 people in 1990. Six percent per 100 people have access to television in 1990. More and more families become aware of the value of knowing about the things happening around them also affect information technology education in the schools.

Cultural diffusion: The curriculum is a vehicle to synthesise various ethnic groups uniqueness in what Indonesia can offer to the world. The world gets the whole picture of Indonesia as a rich mixture of different idiosyncrasies, culture, and richness. Each province offers a different feature to look at but presented as part of a big country, such as Lake Toba in North Sumatra, the mountain of Gold in Irian Jaya, honouring the dead in Toraja Land in Sulawesi, the Temples in Jogjakarta as one of the seventh magnificent world, the unique crafts in Bali and many more. In order to give access to these aspects, there are related subjects to be introduced both in the existing national curriculum i.e. social sciences and local content curriculum.

- B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

The national education system of Indonesia is generally aimed at elevating the intellectual life of the nation and developing the Indonesian people fully, i.e. as people who are devoted to god, have knowledge and skills, are in good physical and spiritual health, are independent and fair, and feel responsible for their country and nation.

- B-1.3 What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

The education system has its roots in the Indonesian culture based on Pancasila and the 1945 constitution. In the law no. 2 of 1989 about National Educational System, the system aims generating abilities and increasing the standard of living and dignity of the Indonesian people in order to achieve the National development objectives based on the law. The national education system is identified in terms of units, paths, types, and levels of education.

- Article 39

(1) the content of the curriculum constitutes the corpus for study and instructions in order to achieve the objective of organizing the education units concerned in the framework of achieving the goal of national education.

(2) The curriculum of every type, stream and stage of education must contain:

- Pancasila education

- Religious education and, civics education

(3) The curriculum for primary education shall at least contain study and instruction

Materials regarding :

a. Pancasila Education

b. Religious Education

c. Civics Education

d. The Indonesian Language

e. Reading and Writing

f. Mathematics (inc. Arithmetic)

g. Introduction to science and technology

h. Geography

i. National and World History

j. Handicraft

k. Physical and Health Education

l. Drawing

m. The English language

- Article 43

Evaluation is made on the learning progress of the education participants

- Article 44

The government can make an evaluation of the result of the learning process of a certain type and/or stage of education on a national scale.

- Article 45

The government shall make periodical and continuing evaluation of the curriculum as well as the means and infrastructure of education according to the needs and the situational development.

B-2. Curriculum change

B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.

The 1984 curriculum was in operation for about 9 years. The curriculum was designed in the light of the need and development of society at that time, It was replaced In 1994 by a new curriculum.

Reasons for curriculum change:

- a. *There has been change in a variety of sectors while the 1984 curriculum was in operation. That is to say, there has been economics development in the international context in general and particularly in Indonesia. In addition, science and technology has spread out in the life of people. It is felt that this movement has to be taken in to consideration for development of education.*
- b. *Some evaluation has been conducted during the implementation of the 1984 curriculum. The results of the evaluation among other things showed that B program, as one of the component of the 1984 curriculum, was postponed as a result of insufficient supporting facilities.*
- c. *The state guidelines for development (GBHN) asserted that it was necessary to do the followings:*
 - *to improve the quality of education at all levels and types of education;*
 - *to expand the basic education program from six to nine years basic education;*
 - *to make law which regulates the implementation of the educational system*
(the law No. 2, 1989 on national educational system was passed on march 27, 1989)

B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reforms? What aspects does your country consider to be the most important for curriculum development in the next five to ten years, such as: globalisation; information technology; communication; and national/cultural identity?

- (1) *broadly, a new and rapidly increasing and questioning of social and institutional procedures, practices and ways of thinking which have been long established and (until recently) well – entrenched;*
- (2) *specifically, a marked increase in public discussion (e.g. in the press) of the 1994 curriculum;*
- (3) *increasing uncertainty regarding economic development, with a consequent risk that social malaise/alienation may develop among significant portions of society.*

The public questioning of the validity of the 1994 curriculum especially when this questioning is carried out by those responsible for design of the curriculum has many benefits. Above all, this demonstrates to all interested stakeholders a frank openness and willingness to be responsive to input.

B-3. Curriculum development processes

B-3.1 Is your country's system of curriculum development centralized, partially centralized or decentralized? Please explain your answer.

1994 curriculum design is partially centralized for basic education (primary and junior secondary education), 80 % of curriculum based on national and 20 % of curriculum based on provincial level design (local content curriculum)

Senior secondary education is centralised (100 % of curriculum content designed at the national level.

B-3.2 Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-governmental agencies, private companies, etc.).

Curriculum Development Center (CDC) which is one center under the Office of Educational and Cultural Research and Development, MOEC, is the Agency takes the responsible for curriculum development in the national level.

A team for curriculum development is appointed. The team consists of steering and working committees. The working committee involved some parties from different institutions, i.e. senior officers from relevant institutions, subject specialists, from universities and institutes, senior subject teachers, and head masters and representatives from the national Education Advisory Board.

The main functions of the CDC (as stated in the Educational Decree No. 0222f/O/1980) are:

- a. to formulate technical policies on curriculum development and educational facilities;*
- b. to conduct the development of curriculum and educational facilities which cover institutional objectives, program structure and basic course outline, teaching-learning models and methods in various subject area, learning materials, such as books and modules, curriculum administration, and prototype of educational facilities;*
- c. to coordinate and guide the development of curriculum and educational facilities within and outside the CDC;*
- d. to formulate suggestions on government policies in curriculum and educational facilities; and*
- e. to implement and manage the CDC's administrative affairs.*

The LCC, however, is developed in the provincial level by the Curriculum Network Group through the curriculum network. The curriculum network is a mechanism

established by the CDC to strengthen professional support for teachers concerning curriculum development across the country.

Why was the curriculum network established ?

The curriculum network was established in order that:

- a. the involvement of different regions in the development of a national curriculum can be accommodated;*
- b. curriculum development in various levels (national, provincial, district) can be carried out more professionally*
- c. a mechanism for curriculum dissemination and development at both national and provincial level can be established.*

Who are involved in the curriculum network ?

The curriculum network includes 27 professional groups from 27 provinces across the country, each consisting of 35 persons. Members of the each group within the curriculum network are selected from among the best teachers in the primary, junior secondary, and senior secondary, and vocational schools, principals, supervisors, and Kanwil (Regional Office of Education and Culture) staff who possess the potential to be curriculum developers at the provincial level. The members are involved in a series of programs for intensive training, guidance for field experiences, evaluation, and revision. They are appointed by, and report to, the Head of Kanwil.

What are the responsibilities of the CDC concerning the Curriculum Network ?

The responsibilities of CDC concerning the groups in curriculum network are the following:

- a. to advise and assist the curriculum network in planning, developing, and implementing the curriculum according to national and local conditions and needs;*
- b. to guide the curriculum network in the adjustment, elaboration, and analysis of the national and local content curricula;*
- c. to advise and assist the curriculum network in monitoring and evaluating the implementation of both national and local content curricula.*

What are the tasks of the curriculum network groups ?

The curriculum network is responsible for the following:

- a. planning and developing, and implementing the curriculum according to national and local conditions and needs;*
- b. assisting the teachers in curriculum development through curricular adjustments, elaboration, and analysis based on the students' immediate environment and community needs and resources; and*
- c. monitor and evaluate the implementation of both national and local content curricula.*

What are some of the accomplishments curriculum network groups ?

The following are some of the accomplishments of the curriculum network groups during the last few years (starting since 1993 up to now):

- a. the development and implementation of local content curriculum materials which consists of Basic Foundations and Program at primary and junior secondary (from 27 provinces), Basic Course Outline, and Implementation Guidebooks which consist of teaching guide, assessment guide, and counselling guide;*
- b. adjustment and analysis of the national BCO of curriculum for primary schools, junior secondary schools, and senior secondary schools;*
- c. curriculum monitoring and evaluation of both national curriculum and local content curriculum at the provincial concerned.*

B-3.3 In what ways are the viewpoints of different groups (such as professional and other stakeholders, participation of parents, teachers, student, etc.) accommodated in the decision-making processes? Please give some recent specific examples.

Role of professional : as a resource person to drive or to construct of content which is relevant to the future needs in line with the development of science and technology as well as the development of society.

Stakeholders : as a policy maker with responsibility to support information related to national policy as well as the existing facility at the school level.

Parents : as a government's partner in implementation of school curriculum.

Teachers: as implementers and as resource persons of the implemented curriculum.

Students : as an object of the implemented curriculum.

Industry : as users of the schools' product or school leavers

B-3.4 In what way does national and/or local curriculum policy promotes unity/cultural diversity in your country? Please give specific examples to illustrate your answer.

Regarding the National Educational System, (1989 law), Article 37 stated that education be available with due regard to the stages of development of the education participants and its conformity with the environment, national development needs, the development of science and technology, and arts, in line with the types and stages of the education units concerned.

In order to promote unity, the national curriculum for all type, stream and stage of education must contain Pancasila education (Five-Basic Principles of the Indonesia's Philosophy), religious education, civics education and the Indonesian language.

As an example, the curriculum for primary education shall at least contain study and instruction materials regarding : Pancasila education, religious education, civics education, the Indonesian Language, reading and writing, mathematics

(including arithmetic), introduction to science and technology, geography, national and world history, handicrafts and arts, physical and health education, drawing, and the English education.

However, Indonesia is a multi-cultural society and that the environment within the regions varies physically as well as culturally. Considering these social-cultural and physical variations, the existing 1994 curriculum for basic education which comprises primary education and junior secondary education, adopted the local content curriculum (LCC) as follows:

1. LCC consist of several subjects (Indonesia has 27 provinces, and each province has LCC which is suitable to needs and potential); e.g. local language, local culture, and work skills;
2. the LCC has a share of more or less 20% of the school curriculum content and;
3. the LCC must be developed at local level under the responsibility of the regional officers of the Ministry of Education and Culture (MOEC).

The main goal of the LCC is to give opportunity to some extent to students to develop their ability to suit the needs of respective regions.

The objectives of the LCC are for the students:

- (1) to gain a better knowledge of their immediate natural and social environment, and
- (2) to acquire basic skills, life skills, and income producing skills to become useful members of their community.

Therefore, the LCC in each province various in its scope. The following as the examples overall scopes found in the different provinces:

1. Local culture: local language, local art, manners/ morals, traditional dances, local wedding, folk games, local history, local music, and local singing.
2. Basic and Life Skills: painting/drawing, automotive typing, administrations, commerce, trade, computer, electronics;
3. Income Producing Skills: home industries, agro- industries, janur (coconut leaves) making, farming, fishery, cane work, wood craft, cooking, batik making, dress making, sewing, handicraft, ceramic making;
4. Environmental Education: marine education, plantation, tourism, life in metropolitan city,
5. Other Concerns: English in p.5, Arabic reading/writing, Al-qur'an reading/writing.

- B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.

According to the 1989 law (National Educational System Law) article 23 stated that national education is open in nature and provides ample opportunities to all participants in education. Relating to the article, every participant in an education unit has the right such as : to be treated in accordance with his/her talents, interests, and capacity, and to pursue his/her education program on a continuing basis either to develop his/her personal capacity or to earn recognition for a certain level of education which has been standardised.

Education participants, therefore, shall have the opportunity to develop their capacity through the acquisition of knowledge at any given time during their lifetime according to their talents, interest, and respective capabilities.

In response to the above, the government of Indonesia provides a curriculum for handicap children (with the type and level of disabilities). At present, CDC is developing curriculum for gifted children at the primary and secondary level. The implementation of this curriculum, however, has been introducing at primary and secondary level using method of enriching talented students by making use of the existing curriculum.

Section C: Curriculum Design

C-1. Curriculum organization

- C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

The national education is rooted in the nation's culture and based on the Pancasila and the 1945 constitution. The constitution direct to endeavour to advance the intellectual life of the people and the government should make efforts to implement a national system of education to be regulated by law.

According to the law, the national education is intended to improve the quality of life and dignity of the Indonesian man in the effort to realise the national goal.

Therefore, the existing curriculum 1994 was designed on the basis provision on the law. The expected curriculum should meet the requirements of the law in terms of the following aspects: the function and goal of education, the content of curriculum, the level and stream of education. Thus, the curriculum is counter/topic based although the languages curricula are skill based. For example, Junior Secondary Education curriculum is designed to provide students with basic abilities as the extension of the knowledge and experience the student have obtained in primary school, i.e. enable students to develop themselves as a person, a member of the society, and citizen in line with their development stages and to take part in further education.

The curriculum of Senior Secondary is designed (1) to upgrade the knowledge of the students to prepare for further education and develop their capacity to put up into the development of science, technology and arts. (2) to upgrade the capacity of the students to prepare them to become members of society possessing the capabilities to keep mutual interaction with their social-cultural and natural environment.

- C-1.2 Please describe whether your curriculum is mainly designed to:
- be implemented by teachers as written OR;
 - be interpreted by teachers and implemented with variations OR;
 - give teachers total freedom to create the curriculum OR;
 - some combination of the above.

Please give examples to illustrate your answer.

The characteristic of 1994 curriculum is flexible especially in Basic Course Outline (BCO). Teacher, therefore, has simplified and adjusted the BCO content according to the students' immediate environment as a consequence of the flexibility of the national curriculum in terms of time allocation, delivery modes of teaching, method of assessing students' achievement, learning resources, and teaching materials.

This can be concluded that curriculum is designed to be implemented by teachers as written (intended-curriculum) and to be interpreted by them with variations in line with the students' immediate environment as well as school conditions.

- C-1.3 Basic structure of the current and/or future school curriculum
- Please give the ranges of subjects offered in your country in years 1-9/grades 1 to 9 giving specific information on the following matters:
- indicate what subjects are compulsory or optional;
 - indicate the time allocation for each subject (in hours per year). Note-if your country does not have a pre-set time allocation either estimate or state 'not available';
 - How many hours a week are allocated to co-curricula (or extra curricula) activities? Are these compulsory or elective?

	Subject	Grade / Year (hours/year)								
		1	2	3	4	5	6	7	8	9
Compulsory	Pancasila & Civics Educ.	96	96	96	96	96	96	96	96	96
	Religion Education	96	96	96	96	96	96	96	96	96
	Indonesian Language	480	480	480	384	384	384	288	288	288
	Mathematics	480	480	480	384	384	384	288	288	288
	Science	-	-	144	288	288	288	288	288	288
	Social Sciences	-	-	144	240	240	240	288	288	288
	Handicraft and Art	96	96	96	96	96	96	96	96	96
	Physical & Health Educ.	96	96	96	96	96	96	96	96	96
	English	-	-	-	-	-	-	192	192	192
	Local Content Curriculum (Consisting of level subjects)	96	96	192	240	336	336	288	288	288
Co-curricular	Children Red Cross									
	Small Doctor									
	Games/Traditional Games									
	Total	1440	1440	1824	1920	2016	2016	2016	2016	2016

Notes : There are no options

The length of 1 lesson hour is as follows :

Grade/Year I and II Primary School = 30 minutes

Grade/year III primary school = 35 minutes

Grade/Year IV to VI Primary School = 40 minutes

Grade/Year VII to IX Primary School = 45 minutes

C-1.4 Integration

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

In primary school curriculum the subject of Science and Social Sciences do not stand on their own as separated subjects in grade I and grade II. Instead, they are integrated in Indonesian Language. Therefore, the students learn Science and Social Sciences through the Indonesian Language.

This, however, Sciences and Social Sciences as subjects begin in the third grade. The emphasis of the Sciences as a single subject given in primary school (grade 3 – grade 6) is more on providing information through observations of various kinds and nature of natural as well as man-made environments.

In Junior Secondary curriculum, Sciences are taught as separate subjects for Physics and Biology.

At the level of Junior Secondary School students started to be introduced to scientific basic understanding such as causal-effect relationships and objective observation procedures using equipment which can go beyond human's development.

Furthermore, at this level, simple technology is also introduced to develop and grow creativity in making use of available natural resources.

Social sciences in the primary school curriculum starts in the third grade and consists of knowledge about social environment, geography, business and commerce, and government, and history which covers knowledge about the development process of Indonesian societies from of the past until the present.

Social Sciences at Junior Secondary School Curriculum are taught as separate subjects under Geography, History, and Economics. These subjects focus on various fields of social knowledge such as geography, national as well as general history, business and commerce.

The coverage of handicraft and arts materials at primary school curriculum contains integrated forms of handicraft and arts. Handicraft and Art subject in Junior Secondary School curriculum is an integrated subject. It contains materials which emphasises the development of basic skill concerning particular handicraft and arts, to develop basic skills of hand-work, sense of beauty and appreciation of the arts.

Concerning music at primary school this is basically using block-notation, unless the school is not able yet, number notation is allowed. At the level of Junior Secondary, block-notation is used.

C-1.5 Specific curriculum areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated area, at what level of schooling they are taught, etc.).

Themes/ Areas	How your curr. deals with the theme/area	Level of Schooling
Values/International understanding (i.e. moral/ethics issues etc.)	Pancasila and Civics Education	1 - 9
Education for the world of work	Handicrafts Local Content Curriculum	7 - 9 4 - 9
Foreign Languages	English Local Content Curriculum Japanese, Arabic, French, German (optional at General Senior Secondary Education)	7 - 9 4 - 6 10 - 12
Computer/ Information Technology	LCC Sciences (Physics)	4 - 9 7 - 9
Health Education (e.g. diet, drugs, HIV/AIDS, Personal Hygiene, Food Hygiene)	Physical and Health Education Sciences Biology	1 - 9 3 - 6 7 - 9

Themes/ Areas	How your curr. deals with the theme/area	Level of Schooling
Environmental Education	LCC Sciences	1- 9 2- 3 - 9
Practices and habit formation concerning religion activities which is required by the respective religion	Religion Education (Moslem, Catholic, Protestant, Hindu, Buddha)	1 - 9
Locally and Potentially Conditions (Local Culture	LCC	1 - 9

C-1.6 Curriculum coverage

C-1.6.1 What are the issues in your country with regard to pressure in the coverage of the curriculum?

Issues with regard to pressure on the coverage of the curriculum (grade 1- 9)

1. *too advanced for the student's level*
2. *too much content with very limited time*
3. *the Basic Course Outline (BCO) is not very clear in terms of competencies, skills, and knowledge objectives to be acquired by students*
4. *the application of concepts to the students' daily life is not written in BCO. The content is mostly concerned with the structure of knowledge.*

C-1.6.2 What steps, if any, are being taken to address these concerns?

Primary Education (Grade 1-6)

PEQIP (Primary education Quality Improvement Project funded by World Bank). The PEQIP provide in-service training and basic inputs including books and other materials and promote better management and community involvement in effort to improve student achievement, completion rates and overall quality.

One of the project's activities was an improvements in the teaching-learning process through in-service teacher training as input into professional development programs for teachers, tutors, supervisors and head masters.

Junior Secondary Education (Grade 7-9)

In order to empower subject matter teachers, an in-service , on-service program for teachers was conducted where learning accomplished at the training centre (in-service) would be reinforced and extended by on-the-job learning in the school (on service). This program, which become known as the PKG (Pemantapan Kerja Guru or Empowering Teachers Performance) program has gone through several models since its development in the 1980s and is now referred to as the MGMP (Musyawarah Guru Mata Pelajaran or Working Group of Subject Matter Teachers).

Curriculum Development Centre (CDC) during the present time is preparing revisions the existing 1994 curriculum . The following activities are underway:

- (1) *Analyse of 1994 curriculum*
- (2) *Elaborating the Minimum Learning Competencies to be acquired by all pupils at basic education level;*
- (3) *Revising the existing curriculum 1994*
- (4) *Piloting in the limited scale of province*
- (5) *Monitoring / action research at the pilot schools;*
- (6) *Socialisation of the revised curriculum (new curriculum);*
- (7) *Implementation.*

Section D: Curriculum Implementation

D-1. Teacher Professional Development

D-1.1 Pre-service teacher development

D-1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

Yes

D-1.1.2 Is there a prescribed national curriculum/guidelines/framework for pre-service teacher education in your country?

Yes

D-1.1.3 What is your country's programme for pre-service teacher development?

Level of Teacher	Title/Length Program	Type of Institution	Minimum Entry Requirement
Primary	D2 (2 years)	Higher Ed.	12 years sec. sch.
Lower Secondary	D3 (3 years)	Higher Ed.	12 years sec. sch.
Upper Secondary	S1 (4 years)	Higher Ed.	12 years sec. sch.

D-1.1.4 Pre-service teacher education programmes usually include components of education foundations (e.g. sociology of education, history of education); general methods courses (e.g. educational technology, classroom management, assessment); subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practicum. Please describe the general components of the pre-service teacher education programme in your country.

Pre-service Teacher Education Programs consists of several programs as follows:

I. First Degree ("Sarjana or S-1 Degree) in Education (4 years)

A. General Foundation Subject (MKU = Mata Kuliah Umum) = 10 credits:

- 1. Pancasila (Five Basic Principles of Indonesian Philosophy Education) = 2 credits*
- 2. Religion Education = 2 credits*

3. *Civics Education* = 2 credits
 4. *Basic Social Science (or Basic Cultural Science)* = 2 credits
 5. *Basic Natural Science* = 2 credits
- B. *Basic Education Foundation (MKDK = Mata Kuliah Dasar Keahlian)* = 13 credits

1. *Educational Introduction* = 3 credits
2. *Educational Philosophy* = 2 credits
3. *Philosophy of Learning* = 4 credits
4. *Educational Profession* = 4 credits

C. *Specific Subjects I*

1. *Psychology of Behaviour* = 2 credits
2. *Individual Psychology* = 4 credits
3. *Basic Guide and Counselling* = 4 credits
4. *Individual Understanding* = 8 credits
5. *Communication within Individual* = 2 credits
6. *Case Study* = 2 credits
7. *Counselling Psychology* = 2 credits
8. *Technical and Counselling Laboratory* = 4 credits
9. *Counselling Model* = 2 credits
10. *Guidance and Counselling for Family* = 3 credits
11. *Counselling Service* = 3 credits
12. *Guidance and Counselling for career* = 5 credits
13. *Guidance and Counselling for Learning* = 5 credits
14. *Guidance and Counselling at School* = 5 credits
15. *Field Practicum of Guidance and Counselling* = 4 credits
16. *Statistics* = 2 credits
17. *Problem Survey of Guidance and Counselling* = 2 credits
18. *Writing Dissertation* = 6 credits

D. *Specific Subjects*

1. *Learning Materials* = 3 credits
2. *Learning Methodology* = 2 credits
3. *Educational Assessment* = 2 credits
4. *Psychology of Learning and Guidance* = 3 credits
5. *Field Experiences Program* = 2 credits

Total : 73 credits

Each Subject matter : 1. *Education Foundation*

2. *Basic Education Foundation*
3. *Specific Subjects (1)*
4. *Specific Subjects (2)*

Example

First Degree : Program of English Teaching

A. General Foundation Subject (MKU = Mata Kuliah Umum) = 10 credits:

- 1. Pancasila (Five Basic Principles of Indonesian Philosophy Education) = 2 credits*
- 2. Religion Education = 2 credits*
- 3. Civics Education = 2 credits*
- 4. Basic Social Science (or Basic Cultural Science) = 2 credits*
- 5. Basic Natural Science = 2 credits*

B. Basic Education Foundation (MKDK = Mata Kuliah Dasar Keahlian) = 13 credits

- 1. Educational Introduction = 3 credits*
- 2. Educational Philosophy = 2 credits*
- 3. Philosophy of Learning = 4 credits*
- 4. Educational Profession = 4 credits*

C. Specific Subject I

- 1. Introduction to Linguistic = 3 credits*
- 2. English Phonology = 3 credits*
- 3. English Syntax = 2 credits*
- 4. Grammar/Structure = 6 credits*
- 5. Semantics = 2 credits*
- 6. Sociolinguistic = 2 credits*
- 7. Psycholinguistic = 2 credits*
- 8. Introduction to Literature = 2 credits*
- 9. Prose = 2 credit*
- 10. Drama = 2 credit*
- 11. Cross-Cultural Understanding = 2 credits*
- 12. Listening Comprehension = 3 credits*
- 13. Pronunciation Practice = 3 credits*
- 14. Speaking = 3 credits*
- 15. Reading = 3 credits*
- 16. Writing = 3 credits*
- 17. Translation = 2 credits*
- 18. Dictation = 2 credits*
- 19. Extensive Reading = 3 credits*
- 20. English for Specific Purposes = 2 credits*
- 21. Thesis or Other Scientific Writing = 6 credits*

D. Specific Subjects II

- 1. Research in English Language Teaching = 2 credits*
- 2. Seminar on Language Teaching = 2 credits*
- 3. Language testing = 2 credits*
- 4. Teaching English as Foreign Language = 2 credits*
- 5. Curriculum and materials Development = 2 credits*
- 6. Field Teaching Experiences = 4 credits*

Primary School Teacher Development Program (DIPLOMA 2)

Basic Component of Primary School Teacher Development Program (Diploma II/2 years):

1. *Educational Principles*
2. *Subject matters :*
 - (a) *Pancasila and Civics Education*
 - (b) *Social Sciences Education*
 - (c) *Science Education*
 - (d) *Mathematics Education*
 - (e) *Indonesian Language and Literature*
 - (f) *Arts Education*
 - (g) *Physical and Health Education*
3. *Integrated Study of Diploma II*
4. *Filed Teaching Experiences Program*

Basic Course Outline (BCO) of Diploma II Program of Primary School Teachers

Field of Subject	Credits	Semester				
		1	2	3	4	5
<i>General Subjects:</i>	8					
1. <i>Pancasila (Five Basic Principles of Indonesian Philosophy)</i>	2	2				
2. <i>Religion Education</i>						
3. <i>Education of National Ideology, Politic, Social, Culture and National Defence.</i>	2				4	
	2					
<i>Educational Principles:</i>	16					
4. <i>Basic Principles of Primary Education</i>	3	3				
5. <i>Children Development and Learning Psychology</i>	3	3				
6. <i>Classroom Management</i>	2	2				
7. <i>Teaching Evaluation</i>	2		2			
8. <i>Guidance at Primary Education</i>	2			2		
9. <i>Teaching and Learning Strategy</i>	4			4		

Field of Subject	Credits	Semester				
		1	2	3	4	5
<i>Subject Matter:</i>	47					
10. Pancasila and Civics Education	3	3				
11. Basic Concept Social Sciences	3		3			
12. Social Sciences Education at Primary Education	3			3		
13. Global Perspective	2		4			
14. Basic Concepts of Sciences	4			4		
15. Science Education at Primary Education	4	3				
16. Mathematics	3		3			
17. Mathematics Education I	3			3		
18. Mathematics Education II	3	3				
19. Language Skills Education	3		3	3		
20. Indonesian Language and Literature for the lower grades	3					
21. Indonesian Language and Literature for the higher grades	3				2	
22. Painting (Drawing)	2				2	
23. Music	2				1	
24. Drama and Dance	3				1	
25. Physical and Health Education	2				2	
<i>Integrated Study</i>	2					
<i>Field Teaching Experiences Program</i>	5				1	4
Total	78	19	19	20	16	4

D-1.1.5 Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of changes in education? Please give specific examples to illustrate your answer.

D-1.2 In-service teacher development programmes

D-1.2.1 Is in-service professional development for teachers' compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?

No. It is voluntary

D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?

Yes. Through project

D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?

D-1.2.4 Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualification improvement,

increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?

Obtaining credit point used for up-grading of salary is used as the motivating factor.

- D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools? For example, is compulsory/voluntary in-service training provided; or teacher guides to the curriculum-published etc.

Teacher guides are published and many teachers receive some socialisation training on a new curriculum.

D-2. Resource Support

- D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:
- (1) Government directly sponsoring the writing, production, and distribution of textbooks
 - (2) Government approving a particular selection of textbooks
 - (3) The choice of textbooks entirely made by schools and/or teachers
 - (4) Other methods – please specify.

Indonesia uses method (1) above for SD and a combination of (1) and (2) for other levels.

- D-2.2 What other teaching/learning support materials are available for schools (e.g. Teacher guides, videotapes, computer software, CD-ROMs etc)?

Guideline for teaching learning (work sheet, instructional media, teaching aids, apparatus).

- D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise etc.)

Through government design specific project i.e. SEQIP (Science Education Quality Improvement Project funded by World Bank.

- D-2.4 How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

Government is aiming to provide each child with a copy of the textbook for the core subjects. Parents buy the private books.

Government provides the materials for the school to use

D-3. Community Support

D-3.1 In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO's, the religious community etc.) supporting curriculum implementation? Please give specific examples.

- Through Teacher and Parent Association (TPA), usually meeting 3 times a year, for analysis the needs of the school)

D-4. Classroom Strategies

D-4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

- In/On service training

D-4.2 What are the major issues and concern about teaching methods in your country?

Frontal lecturing with active teachers and passive students.

D-5. School-based Student Assessment

D-5.1 Data is collected to assess students' performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc.), and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

Changes in curriculum 1994 in say languages are not reflected in the tests. Language teaching uses communicative approach. While the tests concentrate on grammar and reading. As a result, teachers also concentrate on grammar and fail to develop productive language skills in pupils.

Similarly, practical science teaching is indicated in the curriculum but neglected by teachers because these skills and aspects are not tested.

D-5.2 There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for

promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?

The end of year test is used for promotion to the next grade. All the end of term tests are used for reporting to parents. Tests are rarely used for diagnosing children's difficulties, misconceptions and remedial work. Multiple choice questions at the end of a completed unit of work. End of the term tests at a provincial level.

D-5.3 Performance can be reported as a percentage rating (e.g. 75%, 80%, etc.), grade rating: (e.g. A, B, C, etc.) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting student's performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

D-5.4 Does your country have any external examination system? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (e.g. how it might influence the aims/goals of the planned curriculum).

No

D-6. Barriers and Constraints to Effective Curriculum Implementation

D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

Low level of teacher autonomy, low level of teacher's skills ineffective, in-service teacher training, poor quality textbooks, overloaded curriculum, poorly constructed termly and annual tests. The emphasis on obtaining link grades rather than developing skills – a problem persistent over the last twenty years, is prevalent throughout society and greatly hinders the effective and meaning full implementation of the curriculum.

Section E: Curriculum Monitoring and Evaluation

E-1. Monitoring and Evaluation

E-1.1 What processes are used to monitor curriculum implementation in your country?

The process used to monitor curriculum implementation and dimensions involved is input and process. The following are addressed during the initial monitoring:

A. Objectives:

1. *Identify the impact of the school upon the implementation of curriculum 1994 in terms of :*
 - (a) *Student baseline data and achievement*
 - (b) *Teacher's characteristics*
 - (c) *Head teacher's characteristics*
 - (d) *State of learning resources and facilities*
 - (e) *School program offerings and activities to implement curriculum*
2. *Identify methodologies and approaches to implement curriculum 1994 in general and five core subject in particular.*
3. *Identify the process which will facilitate the attainment of goals*
4. *Disseminate the procedures in curriculum 1994*

B. Selection of Venue

1. *Stratified random sampling is applied to select schools representative of the country;*
2. *Provinces are identified by Curriculum Development Centre;*

C. Respondents

1. *Teachers of the same core subjects*
2. *Head teachers*
3. *Students in the same core subjects*
4. *Parents of students and school personnel*

D. Methods of gathering data

1. *Interviews*
2. *Classroom Observation*
3. *Administration of questionnaires and check-list*
4. *Document analysis*

E-2. Curriculum Evaluation

- E-2.1 Please describe the mechanisms/major tools used in your country for curriculum evaluation?

Curriculum evaluation designed to assess various dimensions of the curriculum. These dimensions are typically pursued in curriculum evaluation; input, process, and out-puts. Each dimension give impact on how the curriculum monitoring and evaluation will be undertaken and data collected.

1. *Input dimensions*

This dimension concentrates on inputs giving support to the implementation of curriculum. The activities selected as inputs include the following:

- a. Facilities and resources*
- b. Professional preparation of teacher and administrators*
- c. Scholastics and socio-economic characteristics of students.*
- d. Significant others*
- e. Curriculum design itself*

2. Process dimension

The process dimension concentrates on the process of implementation of curriculum. It includes the following :

- a. Effective school variables*
- b. Adoption of methodologies approach*
- c. Use of prototype lesson*
- d. Use of source book*

3. Out-put Dimensions

The third dimension in curriculum evaluation is the most widely pursued for it is based on out-put which has been interpreted primary in terms of student's achievement in the different core subject. The parameters for students are:

- a. Progress during the term*
- b. Changes in attitudes*
- c. Improvement in general competencies and skills*
- d. Formative and summative test results*

The parameters for the teachers are:

- a. Improvement in methodologies and approaches*
- b. Changes in attitudes*
- c. Improvement in professional qualifications*
- d. Teaching effectiveness*
- e. Involvement in curriculum improvement activities*

- E-2.2** *How are the results of the national curriculum evaluation used in your country? For example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.*

The results of the national curriculum evaluation is used for:

- Stakeholder to design a project as a tool for improving curriculum implementation*
- CDC as a input for further revision of the curriculum documents*

E-3. Monitoring of Local Curriculum

- E-3.1 In a district or school have the opportunity to design programs that reflect the interests and needs of the students and their parents. If your have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?

Monitoring curriculum at provincial level and district level through supervisor:

- 1. Classroom visit : classroom observation to evaluate teaching and learning process (effective teaching)*
- 2. Giving a test : sample test to evaluate the achieved curriculum*
- 3. Interview : in order to empower teacher performance*

E-4. Student Assessment for Curriculum Monitoring

- E-4.1 What types of assessment are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.

The types of assessment that are used to evaluate the impact of curriculum on students achievement, through:

- Three times a year for each grade (1-9)*
- A test at the end of teach*
- National exam for school leaving certificate at the end of grade.*

E-5. Research and Curriculum Development

- E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

(1) Studies by Moegiadi (1976) and Suryadi (1989) suggest that achievement levels were low. There was on average, less than 50% mastery in science, mathematics, and Indonesian Language. Furthermore, the same low level of academic achievement was found in both studies, conducted thirteen years apart.

In the 1989 study, achievement did improve somewhat in Indonesian Language and science, but it declined in math. A possible positive interpretation of these results are that since there was a major expansion in the intervening years, one might have expected overall achievement level to fall. The fact that they did not fall dramatically may suggest that the quality of schools improved or at least did not deteriorate. On the negative side, it is notable that the absolute level of achievement in both years remained unsatisfactory.

Suryadi Study (1989)			
Statistics	Ind. Language (n = 5533)	Math (n = 57570)	Science (n = 5790)
Mean	27.7	21.6	24.2
SD	7.9	8.7	6.8
No. of items	47	49	47
% correct answer	59	44	53
Moegiadi Study (1976)			
Mean	35	33	27
SD	12	9	8
No. of items	60	60	60
% correct answer	49	55	45

(2) *The IEA study (1992) was an international study of literacy. A sample of Indonesian students was included from grades 4 and 8 in several provinces.*

The result for primary students were low. Students correctly answered, an average 36% of the questions. There were wide regional differences as well. The lowest marks were recovered for those who attended rural schools. The highest literacy achievement scores came from Yogyakarta, followed by Jakarta, East Java, Riau, Central Java, NTT, and West Java. Boys and girls had similar scores. Private schools did better than public school.

At the Junior secondary level, approximately 52% of the test questions were answered correctly. The rankings of provinces and gender were similar to that of primary level. However, public Junior Secondary Schools did better than private school.

(3) *Another informal surveys has been conducted out on small samples of school using classroom observation and testing of student's cognitive abilities in basic number skills and reading in the lower grade.*

One study found that students in grades 5 and 6 had not mastered many basic number skills (Sommerset, 1984). Furthermore, many teachers also lacked these skills. A continuation of this survey in to grades 7 and 8 found that errors found at the primary level were still prevalent in later years (Somerset, 1996). These results suggest that poor performance begins in primary school and is perpetuated through secondary education.

(4) *Study (Moegiadi, Suryadi, Sommerset, Malo, et.al. World Bank, 1989) found some points to the following eight factors as the most important reason why students out-comes are generally unsatisfactory.*

a. *Ineffective school management particularly as it relates to the role of the principal;*

- b. Incentive structures that do not adequately reward good teaching practices.
- c. A large stock of teachers who are poorly trained in both subject matter and teaching process;
- d. Low learning time in grades 1 and 2;
- e. Insufficient resources, particularly for schools in poor communities;
- f. Low level and quality of textbook and materials;
- g. Insufficient monitoring and evaluation of quality; and
- h. Current institutional arrangements in Indonesia.

(5) Research on the understanding the basic number skills at 12 primary schools in 4 location (West Java, Central Kalimantan, NTB, and D.I. Yogyakarta) at grades 5 and 6, teachers and teacher trainers were also tested (Sommerset, 1994).

The test was made up of three parts:

- (a) basic number values (whole numbers decimals and mixed numbers)
- (b) simple number operations (addition, subtraction); and
- (c) applied number problems

The students had few difficulties in arranging two or three digit whole numbers correctly. The evaluation of decimal numbers, however, caused major difficulties, e.g. only 12% of the pupils arranged the three decimal numbers 0.55, 0.8 and 0.14 correctly in order of size (from smallest to largest).

A small, but significant minority (7-12%) of teachers and teacher trainers consistently made errors. In simple number operations (add or subtract) two or three digit numbers, with and without decimals), the average mean score was 44%.

There were also enormous variations among schools. The 3 highest achieving schools had mean correct scores of 53-89%, the 5 lowest achieving schools had mean scores of 9-26%.

Calculation errors were more common in high achieving schools, but in low achieving schools basic errors i.e. did not understand process of addition or subtraction) accounted for one-fourth of responses while systematic errors, e.g. larger minus smaller errors were also common. Again, a small minority (9-14%) of teacher trainers made repeated errors.

Students had most difficulties with applied number problems. The mean score was only 32%, and ranged from 10-47%. Most of the errors involved early or middle stages of the cognitive sequence, i.e. understanding the problem, and deciding which number operations needed to be carried out, rather than the calculation stage.

During classroom observation, it was evident that teachers tended to pay little attention to the process of problem solving, and focused more on the mechanical process of calculations. Formulas, e.g. calculating the area of a rectangle, were stressed, rather than the principles. Teachers scored 82% in applied number problems, but teacher trainers scored only 65%. In a calculation of perimeter, they scored worse than students.

(6) Study on monitoring of the implementation of local content curriculum at Junior Secondary Education (Erry Utomo, 1996) in 7 provinces (Lampung, Jambi, East Java, South Sulawesi, Maluku, NTT, and South Kalimantan) by using one of respondent is students (around 308 students) found as follows:

Contents interested by students in learning LCC (Local Content Curriculum):

Local Culture:

- Etiquette 89%

- customs 85% and followed by local painting and local dance, traditional food, local music, traditional dress, and local language. However, few students are prefer to learn Arabic Language (40.6%) and local script (49.7%)

Basic and Life Skills

Computer subject is the most favourite (80.5%) compare to the other subjects such as handicraft, food making, dress making, wood carving, and electronics. However, students were less interest in the subjects such as wood working in making chair (29.9%), agro-industry (30.2%) followed by home decoration (42.2%), and fishery (46.1%).

Environmental Education

Preserving the immediate school' environment is the most interesting subject (94.5%) followed by discipline (93.8%), health (92.5%), and traffic regulation (73.1%). This, however, smoking is not interesting by students (9.1%).

(7) The 3 R's (Sweeting, 1996) combined classroom observation with specially designed tests in reading for primary school grade I and in Indonesian Language and maths for grade IV in PEQIP project schools (World Bank funded project). Findings showed that both teacher and pupils are heavily influenced by the presentation of materials in the government textbooks and ambiguities and inaccuracies in theses books translated into teaching and learning errors in the classroom. Children cannot read with understanding and many cannot follow the conventions of writing so as to be classed as illiterate. Teachers are pressurised by "curriculum targets" to complete the curriculum for any given term and so have to neglect skills development and revision in favour of covering the term's context so the class is not at disadvantage in the term test.

Section F: Further Comments

This questionnaire is good in presentation and the way to collect information dealing with the aspects of intended curriculum and implemented curriculum. This, however, needs further inquiry to include question of textbooks used at school as the elaboration of the intended curriculum in terms of their quality of information, the presentation of textbook, suggestion for activities for teaching and learning.

Japan

Kanji Watanabe

Bunzo Kudo

Section A: Background Information

The purpose of this section of the questionnaire is to collect general information about your country and its education system. Please provide the following information on your country, using 1998 figures or else those that are most recently available (please indicate year).

A-1. General information

A-1.1 Size of population

Total	Year (1998.5)
	Annual population growth rate
12.631	1.002%

(Ten thousand persons)

A-1.2 Indicate the total number of children/youth in the following age groups, using the latest available data.

Age Group	Males	Females	Year (1998.5)
			Total
0-4yrs	305	290	596
5 - 9yrs	316	301	616
10 - 14yrs	362	345	706
15 - 19yrs	405	385	790

(Thousand of persons)

A-1.3 Indicate the major ethnic and language groups in your country, as a percentage of total population.

Ethnic group	%

Language group	%
Japanese	

A-1.4 List the major religious groups in your country

Buddhist and Sinto

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$US) .

182.828\$US (1\$=130yen)

6.3%

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

Japanese

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language(s) are taught and at what levels?

A-2. The Educational system

A-2.1 Structure (Thousand of persons) year (1997)

Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-Compulsory
			Males	Females	Total	Males	Females	Total	
Pre-school	3	3-5			2864	%	%	62.5%	Non-Compulsory
Elementary or Primary	6	6-11			7870	%	%	99.8%	Compulsory
Lower Secondary	3	12-14			4526	%	%	99.0%	Compulsory
Upper Secondary	3	15-17	2286	2228	4515	95.9%	97.7%	96.8%	Non-Compulsory

If possible, attach a diagram of the school educational system in your country.

A-2.2 Class size

Level	Average class size
Elementary/Primary	27.8
Lower Secondary	33.2
Upper Secondary	-

A-2.3 Teachers

Level	Number of Classroom Teachers			Teacher:Student ratio
	Males	Females	Total	
Elementary/Primary	159,784	261,117	420,901	1:18.7
Lower Secondary	161,485	108,744	270,229	1:16.6
Upper Secondary	209,095	67,013	276,108	1:18.7

A-2.4 Number of Schools

Level		Government	Private	Other – please specify	Total
Elementary/Primary		24,205	171	0	24,376
Lower Secondary		10,596	661	0	11,257
Upper Secondary	- General	2,089	742	0	2,831
	- Vocational	1,065	38	0	1,103
	- Specialized	14	8	0	22
	-Others (Comprehensive course)	19	1	0	20
	General and Vocational	943	523	0	1,466
	General and Comprehensive	14	0	0	14
	General, Vocational and Comprehensive	24	2	0	26
	Vocational and Comprehensive	13	1	0	14
	- Total	4,181	1,315	0	5,496

A-2.5 Specific School Information:

	Primary	Secondary	
		Lower	Upper
Number of school days per year for students	35weeks	35weeks	35weeks
Division of school year e.g. quarter, semester	3semesters	3semesters	3semesters
Number of instruction days per week	5 or 6	5 or 6	5 or 6
Teachers' average number of class contact hours per week	18.2	14.4	13.8
Time duration per teaching period (in minutes)	45	50	50

A-3. Any other relevant background information

Please provide here any other background information that will assist in the interpretation of your country response.

Section B: Curriculum policies

During the last decade various efforts have been made in each country to revamp their education systems to bring them into line with social, economic, political and cultural change in the country. These educational changes are reflected in national educational policies and the curricula framework. The main purpose of this section of the questionnaire is to obtain information on this dimension and on the process of curriculum development and change in your country.

B-1. Background

B-1.1 In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.

- Japan today is undergoing wide-ranging and rapid changes in various aspects of society. These changes include: internationalization in the various sectors of society ;the spread of information media; the development of science and technology; changes in industrial and employment structures ; proliferation of small families with one or two children; the aging of the population; the reduction of working hours and an increase in leisure time; and greater participation of women in social functions.

B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

- The educational goals/aims for elementary schools: to provide children between the ages of 6 and 12 with elementary general education suited to the relevant stages of their mental and physical development such as the education that emphasizes to give high respect for each child's individuality and that encourages to cultivate rich humanity and creativity.
- The educational goals/aims for lower secondary schools: to provide children between the ages of 12 and 15 with general secondary education suited to the level of their mental and physical development, based on the education given in the elementary school.

B-1.3 What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

The regulations below are mandatory for all schools.

- The School Education Law provides the goals/aims, the years required for graduation, and the use of textbooks authorized by Monbusho (Ministry of Education, Science, Sports and Culture) of elementary, lower secondary, and upper secondary schools.

- The design of curriculum and the national standard number of yearly school hours are provided by the code to implement the law.
- The specific objectives and contents of each subject are set forth by the Course of Study.
- The teacher's certificate is provided by the Education Personnel Certification Law.

B-2. Curriculum change

B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.

- The implementation of a five-day school week once every month, with the second Saturday every month as a school holiday in September 1992 and two five-day weeks every month, with the second and fourth Saturday as school holidays in April 1996.
- The securing of some latitude in children's life.
- The introduction of single credit based upper secondary school in 1993 and comprehensive upper secondary school in 1994.
- The implementation of reforming educational system such as the initiation of a unified lower and upper secondary school system in 1998.

In implementing the educational reform above, we have needed to focus our attention on two elements. One is to educate people well because human being is the only resource in our country. The other is to give high respect for each child's individuality as well as to cultivate sense of justice, sympathy, creativity and internationalized in order to encourage full demonstration of a child's ability through his/her life.

B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for curriculum development in the next five to ten years, such as: globalisation; information technology; communication; and national/cultural identity?

- The following points are reckoned to be of utmost importance in implementing the on-going curriculum reform: i) to promote various and flexible measures as much as possible in educational system, and ii) to look outside beyond the school's frame of reference to acquire broader views, and tackle the tasks of educational reform with such an open attitude. On the basis of these thoughts, the program for educational reform was created in order to tackle various tasks practically and actively as well. The tasks include reforms of educational system such as initiation of a unified lower and upper secondary school system; cultivating rich humanity; reconsideration of school curriculum in view of the comprehensive five-day school week; prompt responses to changing social needs; school's active cooperation with local community; encouraging

internationalization through the student exchange program; setting up a forum with business community for the expansion of the educational reform movement.

- We plan to start the comprehensive five-day school week in the fiscal year 2002; therefore, we have encouraged the full deliberation at the Curriculum Council. The agenda includes selecting curricula carefully and helping school develop educational activities that have room to grow for each child to learn "zest for living" or to nurture competences for positive living."

The Council published a final report on July 29, 1998.

B-3. Curriculum development processes

B-3.1 Is your country's system of curriculum development centralised, partially centralised or decentralised? Please explain your answer.

- It is centralised: the curriculum development is governed by Monbusho.

B-3.2 Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-governmental agencies, private companies, etc.).

- Monbusho, the central government.

B-3.3 In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc.) accommodated in the decision making processes? Please give some recent specific examples.

- They are accommodated in the National Councils such as the Central Council for Education, the Curriculum Council, the University Council, the Lifelong Learning Council, the Science Council, the Health and Physical Education Council and so forth. The recommendations of the Councils are extremely important as they provide basic guidelines for the present government policies on education, science and culture. With regard to specific strategies for implementing educational reform, the Councils submit their respective recommendations to Monbusho. And other advisory bodies submit various recommendations to the Minister.

B-3.4 In what way does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.
N/A

B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity?

Please provide specific examples.

Yes. Some particular provisions in compulsory education are made for the visually disabled, the hearing impaired and the otherwise disabled. In order to provide broader educational opportunity for a severely disabled children, the visit and teaching program in upper secondary departments of special schools for them has been tested from the fiscal year 1997.

Section C: Curriculum Design

Every country has to make decisions regarding the overall approach to curriculum design as well as to the subject areas that will be included in the school curriculum. This section aims to describe the school curriculum in each country.

C-1. Curriculum organization

C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

- Each school curriculum is designed to show its aims/goals and contents of each subject.

C-1.2 Please describe whether your curriculum is mainly designed to:

- be implemented by teachers as written OR;
- be interpreted by teachers and implemented with variations OR;
- give teachers total freedom to create the curriculum OR;
- some combination of the above.

Please give examples to illustrate your answer.

- It is mainly designed to be interpreted by teachers and implemented with some variations in teaching though they must use the authorized textbooks.

C-1.3 Basic structure of the current and/or future school curriculum

Please give the range of subjects offered in your country in years 1 - 9/ grades 1 to 9, giving specific information on the following matters:

- indicate what subjects are compulsory or optional;
- indicate the time allocation for each subject (in hours per year). Note - if your country does not have a pre-set time allocation either estimate or state not

available);

- How many hours a week are allocated to co-curricula (or extra curricula) activities?
Are these compulsory or elective?

	Subject	Grade/Year								
		1	2	3	4	5	6	7	8	9
Compulsory	Japanese Language	306	315	280	280	210	210	175	140	140
	Social Studies			105	105	105	105	140	140	70-105
	Arithmetic/Mathematics	136	175	175	175	175	175	105	140	140
	Science			105	105	105	105	105	105	105-140
	Life Environmental Studies	102	105							
	Music	68	70	70	70	70	70	70	35-70	35
	Drawing and Handicrafts/Fine Arts	68	70	70	70	70	70	70	35-70	35
	Homemaking/Industrial Art and Homemaking					70	70	70	70	70-105
	Physical Education/Health and Physical Education	102	105	105	105	105	105	105	105	105-140
	Moral Education	34	35	35	35	35	35	35	35	35
	Special Activities	34	35	35	70	70	70	35-70	35-70	35-70
Optional	Elective Subjects.etc							105-140	105-210	140-280
Co-curricula										
Total		850	910	980	1015	1015	1015	1050	1050	1050

C-1.4 Integration

When the NIER survey on curriculum was undertaken ten years ago, curriculum integration was identified as a key issue and concern. In that earlier survey integration was viewed as a continuum. At one end of the continuum was combining the knowledge of several subjects with similar features into one subject area while at the other end was an interdisciplinary approach to integration through the organization of the content and teaching-learning process around themes.

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

• Yes. In the first and second years in elementary schools, the knowledge of Social Studies and Science was combined into one subject area: Life Environment Studies (1989). The curricula to be adopted in schools from the 2002 academic year, when schools will discontinue Saturday classes and adopt a five-day week include the new subject 'General Studies' to nurture 'competences for positive living,' which is an interdisciplinary approach to integration. More than two credit hours per week to the third grade and higher for 'General Studies' will be allocated. The new plan is supposed to be adopted in lower/upper secondary schools as well as in elementary schools.

C-1.5 Specific curriculum areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated area, at what level of schooling they are taught, etc.).

Themes/Areas		How your curriculum deals with the theme/area	Level of Schooling
values/international understanding (e.g. moral/ethical issues etc.)		Moral Education and other all subjects	Elem.-U.S.
Education for the world of work		Industrial Arts/Homemaking and Social Studies	L.S.
Foreign languages		Foreign Language	L.S.-U.S.
Computer/ information technology		Industrial Arts/Homemaking in L.S. / Math. in U.S.	L.S.-U.S.
Health education (e.g. diet, drugs, HIV/Aids)		Health and Physical Education	Elem.-U.S.
Environmental education		related subjects	Elem.-U.S.
Others			

C-1.6 Curriculum coverage

In designing the curriculum, countries need to make decisions about the breadth and depth of subject content and approaches. Some countries believe that the general education provided in their school system requires students to cover too many subject areas. There are pressures, also, to add new subject areas such as environmental studies; international understanding; information technology etc. Other countries are concerned about the number of subjects that students are required to study either because of the pressure this puts on students or because it means that subjects are approached in a way that does not lead to a depth of understanding or to the fostering of creative and critical thinking. There is also concern that overcrowding of the curriculum is being caused by the fact that schools are being asked to take responsibility for a wide range of social issues that were once viewed as the responsibility of families or the community as a whole (for example, appropriate behaviour, personal etiquette, etc.).

- C-1.6.1 What are the issues in your country with regard to pressure on the coverage of the curriculum?
- C-1.6.2 What steps, if any, are being taken to address these concerns?

The general education provided in a school system in Japan seemed to have required students to cover too many subject areas. In preparation for adopting a five-day school week in 2002, the Curriculum Council to the education minister submitted a final report on July 29, 1998 urging fewer mandatory classes in the fundamental subjects to create additional room for general studies that foster humanity, creativity, originality and international awareness. In its report, the council urges a reduction in classroom hours spent on mandatory subjects in secondary schools and instead urges more emphasis on studies such as foreign languages, social welfare and the environment. Pointing out that the current curriculum is insufficient in cultivating original research skills and selfexpression, the council recommended that educational emphasis be shifted from cramming students with large amounts of knowledge to developing intellectual curiosity, creativity and originality.

Section D: Curriculum Implementation

Unless there are effective strategies for the implementation of curriculum policies, an education system does not derive the full benefits that should accrue from the school curriculum. This section of the questionnaire seeks responses to key aspects which are crucial for curriculum implementation: teacher development; resource provision; classroom strategies and student assessment.

D-1. Teacher Professional Development

A good curriculum will simply remain a curriculum on paper if it is not implemented properly. The teacher and the instructional leaders in the school are the key to the implementation of that curriculum. The questions below seek to find out how teachers in your country are prepared professionally for teaching, and the programmes available for their continuous professional development.

D-1.1 Pre-service teacher development

D-1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

- Yes. It requires them to obtain 'Teacher's Certificate.'

D-1.1.2 Is there a prescribed national curriculum/guidelines/ framework for pre-service teacher education in your country?

- Yes. The Education Personnel Certification Law regulates the guidelines for pre-service teacher education.

D-1.1.3 What is your country's programme for pre-service teacher development?

Level of Teacher	Title/Length of Program	Type of Institution	Minimum entry requirement
Primary			
Lower Secondary			
Upper Secondary			

- Teacher's Certificate is given to those who wish to teach in the school sector if they earn the required credits in teacher-training courses in universities and colleges.

D-1.1.4 Pre-service teacher education programmes usually include components of

education foundations (e.g. sociology of education, history of education); general methods courses (e.g. educational technology, classroom management, assessment); subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practicum. Please describe the general components of the pre-service teacher education programme in your country.

- The programs include components of education foundations; general methods courses; subject content courses; specific methods courses; and teaching practicum.

D-1.1.5 Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education? Please give specific examples to illustrate your answer.

- The provisions of the Education Personnel Certification Law are revised to ensure that pre-service teacher education programmes keep up with changes in school curriculum.

D-1.2 In-service teacher development programmes

D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?

- It is compulsory. There are a minimum number of hours required per year; however, each local board of education has its own number of hours.

D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?

- That depends upon the programmes; for example, if some teachers have their in-service professional development in a two-year course (M.Ed.) at national graduate universities, they could get some financial support from local autonomies.

D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In

your country, what professional development opportunities, if any, are available for teachers?

- Teacher association meetings and group studies are common opportunities. Some teachers could go abroad to study within a year with financial support.

D-1.2.4 Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?

- Personal enrichment, increased knowledge and the sharing of ideas are common factors. Some teachers might wish to broaden their horizons to school education.

D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/voluntary in-service training provided; or teacher guides to the curriculum published etc.

- The Compulsory/voluntary in-service training is provided by Monbusho and each local board of education. Some teacher guides to the new curriculum are given to the participants in training.

D-2. Resource Support

Countries are using a diverse range of materials to support the implementation of new curricula. Material support of various kinds may assist in the provision of information for students, provide a guide to teachers and assist teachers in implementing effective classroom programmes that actively involve the students in learning. This material support may take various forms such as: textbooks, videos, computer software, calculators, equipment and apparatus, multimedia, teacher guides and CD Roms. The following questions are designed to find out the kinds of support materials countries are currently using to assist teachers implement curriculum change.

- D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:
- (1) Government directly sponsoring the writing, production, and distribution of text books
 - (2) Government approving a particular selection of textbooks
 - (3) The choice of textbooks entirely made by schools and/or teachers
 - (4) Other methods - please specify.

Please indicate which of the above apply to your country.

- (4) Other methods: In elementary and lower secondary schools, the choice of textbooks is made by each local board of education; on the other hand, teachers make a careful choice of textbooks in upper secondary schools.

D-2.2 What other teaching/learning support materials are available for schools (eg. teacher guides, video tapes, computer software, CD-ROMs etc)?

- teacher guides, sidebooks, audio/video tapes, computer software, CD-ROMs, overhead projectors, etc.

D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise etc)

- Supplementary materials are entirely developed by private enterprises.

D-2.4 How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

- In elementary and lower secondary schools, government provides textbooks; on the other hand, parents buy them in upper secondary schools. With regard to other materials, parents buy them in elementary, lower/upper secondary schools. D-3.1

- Some parents and community leaders could sometimes support curriculum implementation.

D-3. Community Support

D-3.1 In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO s, the religious community etc) supporting curriculum implementation? Please give specific examples.

- Some parents and community leaders could sometimes support curriculum implementation.

D-4. Classroom Strategies

So far the questionnaire has been concerned about the implementation of the planned curriculum. However, the teaching methods employed also have a critical influence on curriculum implementation.

D-4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

- Some teachers could learn new teaching approaches/strategies through some teacher's magazines or by taking part in teacher association meetings.

D-4.2 What are the major issues and concerns about teaching methods in your country?

- That could depend upon each subject; however, in recent years the way of 'how-to-solve problems' would be common to all subjects.

D-5. School-based Student Assessment

A key issue for the effective implementation of the curriculum involves students and their learning at the school level. Countries use a variety of strategies to assess student learning. School based assessment provides feedback to teachers with respect to the effectiveness of their teaching, and provides students and parents with essential information about student progress.

D-5.1 Data is collected to assess students performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc), and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (eg any current change in practice in line with changing focus on the curriculum).

- General assessment: paper-pencil tests, practical work, etc. Since the revised Course of Study in 1989, children's motivation and interest to what/how to learn, and their abilities of what/how to think, what/how to judge, and what/how to express their ideas have been assessed.

D-5.2 There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?

- Mainly as diagnosis of the learning that has occurred.

D-5.3 Performance can be reported as a percentage rating (e.g. 75%, 80%, etc), grade rating: (e.g. A, B, C, etc.) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

- In elementary schools: A – C grade rating

In lower secondary schools: 5 – 1 grade rating

As mentioned in D-5.1, children's motivation and interest to what and how to learn have been thought much of since 1989.

D-5.4 Does your country have any external examination system? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (eg how it might influence the aims/goals of the planned curriculum).

• Yes. It has a national examination administered by the National Center for University Entrance Examinations. It mainly aims to test students in what and how to learn in their high school; therefore, the examination could have great influence in the implementation of the school curriculum.

D-6. Barriers and Constraints to Effective Curriculum Implementation

The effective implementation of curriculum is dependent on a multitude of factors. Countries report that difficulties/barriers that have been identified as constraints to effective curriculum implementation include: inadequate support instructional materials; large class sizes; language of instruction; out-of-date materials; teachers qualifications, teacher availability; teachers knowledge, skills and attitudes; and the performance of teachers and principals.

D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

• The losing of some latitude in students' learning in class could be caused by their earnest preparation for college entrance examinations.

Section E: Curriculum Monitoring and Evaluation

The main purpose of this section of the questionnaire is to find out whether any programme of curriculum evaluation is in operation in your country and how curricula are revised. It needs to be noted that this section is devoted to overall curriculum evaluation and not to individual students evaluation which has been covered in Section D.

E-1. Monitoring and Evaluation

There are a number of ways in which the curriculum can be monitored and evaluated. For example, monitoring visits by supervisors/inspectors, consultative assemblies and curriculum conferences.

E-1.1 What processes are used to monitor curriculum implementation in your country?

- The current curriculum implementation can be monitored at the meetings or seminars in each place by Monbusho. Also, the teacher consultants in the local boards of education always try to observe class activities and to collect information on monitoring the implementation of the school curriculum.

E-2. Curriculum Evaluation

Countries have a variety of strategies for curriculum evaluation such as: analysis of curriculum documents with respect to policy statements; validation conferences with relevant stakeholders; and pilot studies in a few school settings.

E-2.1 Please describe the mechanisms/major tools used in your country for curriculum evaluation?

- In 1993 to 1995, Monbusho put curriculum evaluation into practice after the implementation of new curriculum: paper-pencil tests.

Subject: the 5th and 6th grades in elementary schools: 1 %

the 1st, 2nd, and 3rd grades in lower secondary schools: 1 %

E-2.2 How are the results of the national curriculum evaluation used in your country? For example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.

- The results of the national curriculum evaluation are used to inform the development of new curriculum policy.

E-3. Monitoring of Local Curriculum

E-3.1 In a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is

this done?

N/A

E-4. Student Assessment for Curriculum Monitoring

Some countries are using national student achievement studies to evaluate the effect of the curriculum. For example, national assessment programmes, local assessment programmes, the observation of classes, performance testing etc.

E-4.1 What types of assessment are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.

- National assessment programmes: See in E-2.1.

E-5. Research and Curriculum Development

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

- IEA(International Association for the Evaluation of Educational Achievement)
NIER joined IEA in 1961, when it has participated in the following IEA studies:

- The First International Mathematics Study(1962-1967)
- The First International Science Study(1966-1971)
- The Second International Mathematics Study(1975-1981)
- The Second International Science Study(1980-1988)
- Computers in Education Study(1987-1994)
- The Third International Mathematics and Science Study(1991-1995)
- The Second Information Technology in Education Study(1997-)
- The Third International Mathematics and Science Study:Repeat(1997-)

Lao P.D.R.

Khamphay Sisavanh

COUNTRY REPORT : LAO PDR

General information

Total Pop.	Annual Growth Rate %
4,845,800	2.5

Source: National Statistical Centre, State Planning Committee, 1997.

Total number of children in the following age group in 1997 (thousand people)

Age Group	Female	%	Male	%	Total	%
0-4	378	15.4	385	16.1	763	15.7
5-9	362	14.8	376	15.7	738	15.2
10-14	312	12	329	13.8	641	13.2
15-19	345	10	236	9.9	481	9.9

The major ethnic and language groups

Ethnic group	%	Language group	%
Laoloum	68	Tai-lao	68.1
Laotheung	22	Mon-khmer	22.35
Laosung	10	Hmong-yao	6.89
		Tibet-burmar	2.52
		Ho	0.09
		Viet-muong	0.05

The major religious groups are Bhuddits and Catholics.

The public expenditure on education in 1997-98 FY

A percentage of GNP 3,2%

Lao is the official and instructional language in Lao PDR

The Educational system

Structure

1997 -98 school year

Level	Durat ion in years	Age range taught	Population (Non available)			Number of students of relevant age group attending school			Compuls ory or non- compuls ory
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			Males	Females	Total	Males	Females	Total	
Preschool	3	3-5				18961	20009	38970	NC
Primary	5	6-10				454033	366880	820913	C
Lower secondary	3	11-13				91548	62246	153794	NC
Upper secondary	3	14-16				35097	23335	58432	NC

Class size

Level	Average class size
Primary	28.4
Lower secondary	37.5
Upper secondary	33.4

Teachers

level	Number of classroom teachers			Teacher:Student ratio
	Males	Females	Total	
Primary	16278	10868	27146	30.24
Lower secondary	3784	2709	6493	23.68
Upper secondary	2903	1595	4498	13.00

Number of schools

Level	Government	Private	Temple school	Total
Primary	8075	82	21	8168
Lower secondary	691	21	24	736
General Upper secondary	162	N/A	4	166
Vocational Upper secondary	6	8	N/A	14
Total	8934	111	49	9084

Specific school information:

	Primary	Secondary	
		Lower	Upper
Number of school days per year for students	190	190	190
Division of school year into semester	2	2	2
Number of instruction days per week	5	5	5
Teacher's average number of class contact hours per week	28	20	18
Time duration per teaching period (in minutes)	50	50	50

Curriculum Policies

The goals of Education are set up according to socio-political, economic and cultural development policy of Government. This policy is reflected in the current curriculum objective:

To prepare young people with the spirit of *patriotism, solidarity with all ethnicities in the country and the people of others friendly countries* all over the world; who recognize *the rights, interests and duties* of Lao citizens; who are able to conserve the *national tradition*; who aware of *discipline* and respect public regulation; who master the *general and polytechnical knowledges*; who receive the *vocational guidance and the world of works*; and who have *good health* to be prepared to take active part in the *national defence and the national construction*.

Educational goals for the compulsory education sector in LaoPDR are stated:

The primary education is one of three levels of general education. It covers 5 years of learning. There is the basic education compulsory for every Lao citizen to learn and to finish the programme.

All children of school-going age should be enrolled at primary education level.

The compulsory education aims to:

1. Provide to children with 5 educational development: *intellectual, moral, physical, aesthetical and labour*;
2. Educate children to aware of the *national and revolutionary tradition* and to have the spirit of *patriotism and love of people's democratic society*;
3. Provide to children with *sufficient knowledge and capacity to continue the education at higher level*;
4. Develop *basic labor and vocational skills* for improving their after-school life in community.

The main regulations that govern curriculum are:

- * *Goals of general education (1991)*;

*** Regulation of general education school (1996).**

These regulations are mandatory for all schools.

Curriculum change

In 1986 LaoPDR has moved to market economy . One year later the Government has adopted the Strategy of Education to the year 2000, that brought about the educational reform as well as the curriculum renovation.

In the next curriculum revision we intent to readjust the curriculum for upper secondary education by streamization in two or three main courses in the last year of general education in order to respond to the requirements of higher education. In the other side the number of academic hours in current general education is lower in comparis on with the international standard. Therefore, we have *to add one more school year*. In this connection, the future general education will cover 12 years : *5+4+3 or 6+3+3*.

In the process of curriculum development we take into account the following principles: *national identity, scientific characteristic, globalisation , information tecⁿology and communication*.

Curriculum development processes

School curriculum is highly centralised. Curriculum is juridical document for all schools both public and private. Except, temple schools which may have their own curriculum, developed by a commission consisting of religious representatives, state curriculum developers and representatives of the Lao Front for National Construction (Great influencial mass organisation in LaoPDR). Nevertheless, temple school curriculum should get appoval of Ministry of Education (MOE) before its implementation.

At the same time, national school curriculum is *flexible*. Schools are authorised to amend or to add the relevant contents 10% of the total volume of contents prescribed by MOE.

The National Research Institute for Educational Sciences (NRIES) is completely responsible for development of the curriculum for general education. Curriculum document produced by NRIES should be revised and approved by a Ministrial Commission chaired by Vice Minister, seconded by Director of Departement of General Education (DGE), Director of NRIES, Director of Department of Teacher Training (DTT). Others members of the Commission are Vice Director of NRIES Professors of The National University of Laos (NUOL), Subjectspecialists of Teacher Development Centre (TDC), Directors of some general education schools.

During the meeting for revision and approval of curriculum the representatives of Ministry of Information and Culture, Ministry of Public Health, Youth Union, Trade Union, Women Union, Central Committee

of Lao People's Revolutionary Party for Propaganda and Education are invited to deliver the comments to the Commission.

National curriculum policy promotes unity/cultural diversity by statement of clear objectives of enforcement of solidarity, national conciliation, cooperation among all Lao multiethnic people.

These statements could be found in the following topics of civics:

- 1) Origin of Lao nation;
- 2) Lao multiethnic people;
- 3) Lao culture: customs, tradition and etiquette;
- 4) National policy on ethnicity;
- 5) National policy on Lao culture development...

In the purpose of promotion of literacy for ethnic minority children who do not speak Lao in their community a special method of teaching Lao is provided. It is known as Concentrated Language Encounter.

Other example is that MOE has made the efforts to organise joint learning programme for physical disability children.

The priority is given to girl children. Next phase of education development for 1999 -2005 will run under device *Education for Girl*.

Curriculum Design

Curriculum organisation

Curriculum design in Laos is *combination of content and competency based*. Educational objectives in the curriculum is set up in term of cognitive, psychomotor and affective domains covered five educational aspects: intellectual, moral, labour, physical and aesthetic. According to learning objectives the corresponding topics were determined.

Curriculum is mainly designated to be implemented by teachers. Meanwhile, the teachers have the right to readjust at their discretion. Curriculum should be implemented in creative way. NRIES elaborated teachers' guides along with student textbooks. Teachers in collaboration of pedagogical advisers and supervisors work up the annual, semester and weekly teaching plan.

Basic structure of the current and/or future school curriculum

	Compulsory Subjects	Grade / year								
		1	2	3	4	5	6	7	8	9
	Lao Language	396	330	264	264	264	198	165	132	132
	Mathematics	99	132	165	198	198	198	198	198	198
	The World around Us	66	66	66	99	99				
	Arts	66	66	66	66	66	66	33		
	Physical Education	66	66	66	66	66	66	66	66	66
	Handicraft	33	66	66	66	66				
	Social Sciences: History Geography Civics						33 33 33	66 66 33	66 66 33	66 66 66
	Natural Sciences: Biology Physics Chemistry						99	165	231	66 99 66
	Foreign Languages						99	99	99	99
	Technical Subjects						66	66	66	66
	Co-curricula									
	Saluting the Flag	33	33	33	33	33	33	33	33	33
	School Activities: *Sport competition; *Art performance; *HIV/AIDS,STD Education; Antidrug prevention; Environment Study	132	132	132	132	132	132	132	132	132
	Student Meeting	33	33	33	33	33	33	33	33	33
	Total	924	924	891	957	957	1089	1155	1155	1122

Integration

Subject matters in primary education are highly integrated. For example, the World around Us subject consists of knowledges of moral, civics, history, geography, biology, physics, health education, environmental education, HIV/AIDS, STD and antidrug prevention, population education. At the lower secondary education level knowledges of biology, physics, chemistry, astrology, geology and environmental study

were combined into natural sciences. At the same time the international education contents were infused in various subjects. Eg., population education messages are taught in the World around Us, Civics, Geography and Biology.

Specific curriculum areas

Themes /Areas	How your curriculum deals with the theme/area	Level of schooling (grade)
Value/international understanding	Integrated in the World around Us and Civic Education	1-5 6-11
Education for the world of work	Handicraft and Technical subjects	1-5 6-11
Foreign Languages	French and English	6-11
Computer/IT	Non available in the curriculum	
Health Education	The World around Us and Natural Sciences/Biology	1-5 6-11
Environmental Education	Idem	idem
Philosophy	Civics	9
Political Economics	Civics	10
National Policy	Civics	11

Curriculum coverage

New international education contents such as population education, HIV/AIDS, STD, drug prevention, environmental education, and the national cultural identity, ideological education which the government underlined to be put in curriculum caused some problems related to implementation in the classrooms owing to overcrowded hours.

NRIES in collaboration with DGE DTT and TDC decided to infuse the new content into existed units. Some topics have been completely replaced. The 6 hours a week extra curriculum activities were partly dedicated to the new contents. Supplementary reader books also have been written to respond these demands.

Curriculum Implementation Teacher Professional Development

D-1.1 Yes

D-1.2 Yes

D-1.3 Programme for pre-service teacher development

Level of teacher	Title/Lenth of programme	Type of instruction	Minimum entry requirement
Primary	1 yr	Teacher Training School	Certificate of Lower Secondary Education
	3 yrs		Certificate of Upper Secondary Education
Lower secondary	3 yrs	Teacher College	Certificate of Upper Secondary Education
Upper secondary	4 yrs	National University Faculty of Education	Certificate of Upper Secondary Education

D-1.1.4 The general components of the preservice teacher education programme:

- Components of education foundation
 - 1) Pedagogical knowledges:
 - Physical and intellectual development of children;
 - History of Lao education;
 - Curriculum and teaching processes;
 - Psychology of learning;
 - Instrustional materials;
 - School guidance;
 - School administration;
 - Assessment and evaluation.
- Components of general teaching methods for school subjects:
 - There are 6 subjects in primary: Lao Language, Mathematics, The World Around Us, Handicraft, Arts and Physical Education;
 - There are 8 subjects in lower secondary: Lao Language, Mathematics, Social Sciences, Natural Sciences, Technical Sujets, Foreign Language (Frenh/English), Arts and Physical Education.
 - There are 13 separate subjects in Upper Secondary Education.
- Teaching practicum:
 - Study of school experiences;
 - Teaching practice.

In order to keep up with changes in school curriculum the Teacher Development Centre(TDC) was established. TDC assume all responsibility for development of curriculum of teacher education. It works closely with NRIES in study of school curriculum.TDC and NRIES, for exemple, have coordinated the objectives, contents and teaching learning strategies.

In-service teacher development programmes

In-service professional development for teachers is compulsory, especially for unqualified teachers who remain about 30% of total teachers of primary schools. Teacher upgrading courses for these personnel cover two vacation months or 160-180 hours.

The in-service professional development for teachers of primary education currently is supported by UNICEF. Other inservice professional development programmes for teachers of French and English are provided by Government of France, Regional Bureau of ACCT, AUPEL-UREF and AusAID. Some teachers have an opportunity to participate in short term training courses organised by SEAMEO Centres.

In every school there is a *pedagogical council* which organises regular weekly professional meetings to exchange teaching learning experiences. Teachers are keen to participate in in-service training for the purpose of qualification improvement, knowledge upgrading, keeping up with the professional requirements.

Before implementing a new curriculum the orientation workshops are organised for teachers of all levels to make them aware of the structure of curriculum, new methods of teaching learning, as well as new contents and new concepts of the curriculum. Training courses are also provided for pedagogical advisers to help teachers in schools by conducting educational guidance.

Resource support

Exemples (1) and (2) are practised in Laos.

Along with textbooks, teachers' guides and lowcost teaching aids (posters, word cards, charts, geography maps, globes...) are distributed to some schools.

Currently NRIES is producing supplementary reader books for main subjects: Lao language, Mathematics, social sciences, natural sciences, AIDS Education, drug prevention and English Language. These materials will be tried out in schools, revised, printed and distributed to all schools. In next 5 years NRIES intends to produce more than 400 subject titles.

The Government provides textbooks for all students of public primary schools.

For the students at secondary schools the government provides it on loan basis. Unfortunately, in the private schools the parents have to buy textbooks and other instructional materials for their children.

Community Support

The community supports curriculum implementation by organising Association of Student Parents (ASP). In the villages ASP works closely with school administrators and teachers. Recently, the Education Foundation for Needy Students (EFDS) was created. Many of business people are members of EFDC. We are hoping that it will make a significant contribution in the successful implementation of the new curriculum.

Classroom Strategies

NRIES in collaboration with DGE conducts the 10-day national orientation workshops for training the trainers. Afterwards, the trainers organise the same workshops in their provinces to present how to use the new curriculum.

New concept of strategy of teaching-learning (student centred approach) has been introduced. According to the results of school evaluation, there are some concerns:

- Low teaching competencies;
- Lack of the necessary instructional materials;
- Poor school facilities;
- Overcrowded classrooms;
- Unsufficiency of professional capacity of school administrators and pedagogical advisors.

School-based Student Assessment

Since 1993-94 when the new curriculum was implemented for the first grade of primary schools, assessment tools such as paper-pencil tests have been utilised along with oral tests. Multichoice questions were introduced. Besides that, classroom observation, interviews, and daily records are also recommended.

The assessment of student learning outcomes is conducted for the purpose of judgement of learning performance. Schools try to make formative and summative evaluation. The results of student assessment are given to the parents to find the appropriate way to help their children. In addition teachers can use these findings to improve their teaching techniques.

Performance of students in every subject is recorded in on a scale of 1-10. A score of 5/10 or 50% sufficient for promotion to the next grade. External evaluation is held at the end of primary (grade 5), lower secondary (grade 8) and upper secondary education (grade 11). External examination for primary education runs at the district level by grouping some neighbouring schools. For lower secondary education

it is held at the provincial level. National examinations are organised for upper secondary education. Students who successfully pass such examinations, receive a Certificate of Education at the appropriate level.

In principle, the National Examination Commission (NEC) is convened. It consists of representatives of DGE, NRIES and Provincial Education Services. The results of examinations are used by the NEC as the basis of judgement of issuing the certificates. These results can also be used by NRIES as feedback to revise the curriculum.

Barriers and Constraints to Effective Curriculum Implementation

The significant constraints are:

- curriculum changes brought about the changes in objectives, contents and teaching learning strategies. At the same time, the majority of teachers continue to practise the traditional strategies which can not meet the new requirements, despite the 10-day orientation workshops organised specially for sensitising them with the new curriculum and instructional materials that cost millions of dollars;
- Owing to geographically unaccessible location of schools in remote mountainous rural areas, poor communication facilities and some technico-administrative deficiency, the distribution of instructional materials has been delayed. Not all students have textbooks. Teaching aids, laboratory and, library facilities, and the other materials are not available in many schools in both urban and rural areas;
- Pedagogical advisers who should assist teachers in solving academic problems related to curriculum implementation can not operate according to timetable of school/classroom visits due to financial constraints, lack of incentives and in some cases, low level of professional competence and qualifications;
- The poverty of people in rural areas causes absenteeism and children dropping out of schools.

Section E .Curriculum Monitoring and Evaluation

Monitoring and Evaluation

Pedagogical advisers are responsible for monitoring curriculum implementation at primary education level; educational supervisors assume this responsibility at secondary level. NRIES works closely with them. It develops evaluation tools, collects and analyses data and writes reports. The findings of evaluations serve as a baseline to revise the curriculum.

Curriculum Evaluation

The major evaluation tools developed by the NRIES team are: questionnaires, interviews, observation and recording and standard tests items.

The results of the national curriculum evaluation are used for improving the quality of teaching and learning, the contents of instruction, and the relevance of the curriculum.

Monitoring of Local Curriculum

The MOE gives Provincial and District Education Authorities the right to develop local curricula, which should cover 10% of the total curriculum. However, this has not yet happened.

Student Assessment for Curriculum Monitoring

NRIES, in collaboration with DGE, uses national assessment programmes, classroom/school visits and performance testing. Since 1994-95 the impact of the new curriculum has been evaluated for grades 1,2,3 and 6.

Research and Curriculum Development

During the past ten years no fundamental research had been conducted, except action research on the teaching of Lao language to children of ethnic minorities, who do not speak Lao in their communities.

Further Comments

Since 1976 in Lao PDR no curriculum reform took place. In 1991 NRIES emerged to publish the revised curriculum and to produce the textbooks and teachers' guides for primary and lower secondary education. This has been implemented grade by grade since 1993-94 school year. At the same time, all instructional materials for upper secondary education are in the process of revision and updating. Serious curriculum development for that level will happen after the year 2000.

Malaysia

Sharifah Nor Puteh

Section A: Background Information

A-1. General information

A-1.1 Size of population

Year (1996)

Total	Annual population growth rate
21,296,049	2.17 %

A-1.2 Total number of children/youth in the specified age groups.

Year (1996)

Age Group	Males	Females	Total
0 - 4 yrs	1,310,178	1,229,944	2,540,122
5 - 9 yrs	1,287,453	1,212,013	2,499,466
10 - 14 yrs	1,210,789	1,148,152	2,358,941
15 - 19 yrs	1,089,876	1,026,190	2,116,066

A-1.3 Major ethnic and language groups, as a percentage of total population.

Ethnic group	%
Malay	50.62
Chinese	27.17
Indian	7.69
Bumiputera (Other Natives)	11.15
Others	3.38

Language group	%
Malay	50.62
Chinese	27.17
Tamil	7.69
Others	14.52

A-1.4 Major religious groups in Malaysia:

Islam
Buddhism
Hinduism
Christianity

A-1.5 Annual public expenditure on education:

Total: US\$ 3 122 million
As a percentage of GNP: 5.1 %

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

The national language of Malaysia is Bahasa Melayu (Malay Language) and the second official language is English Language. Other official languages are Chinese and Tamil.

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum?

There are three languages of instruction for the primary schools resulting in three types of primary schools namely Sekolah Kebangsaan (National School), Sekolah Jenis Kebangsaan Cina (National Type Chinese School) and Sekolah Jenis Kebangsaan Tamil (National Type Tamil School). National Schools use Bahasa Melayu as the language of instruction, National Type Chinese Schools use Chinese Language as the language of instruction and National Type Tamil Schools use Tamil Language as the language of instruction. In all types of schools, Bahasa Melayu and English Language are compulsory.

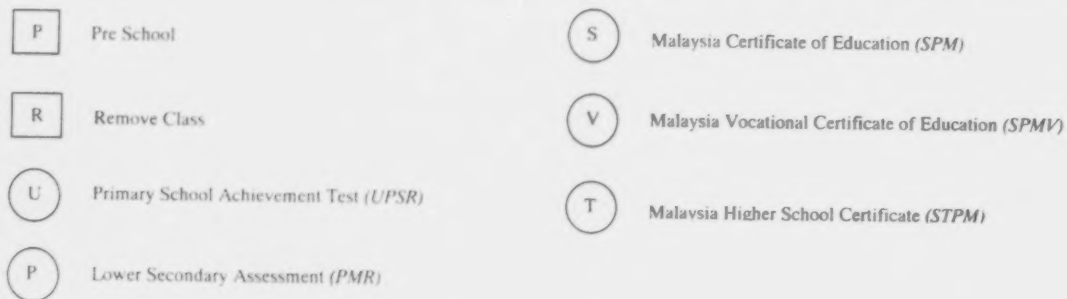
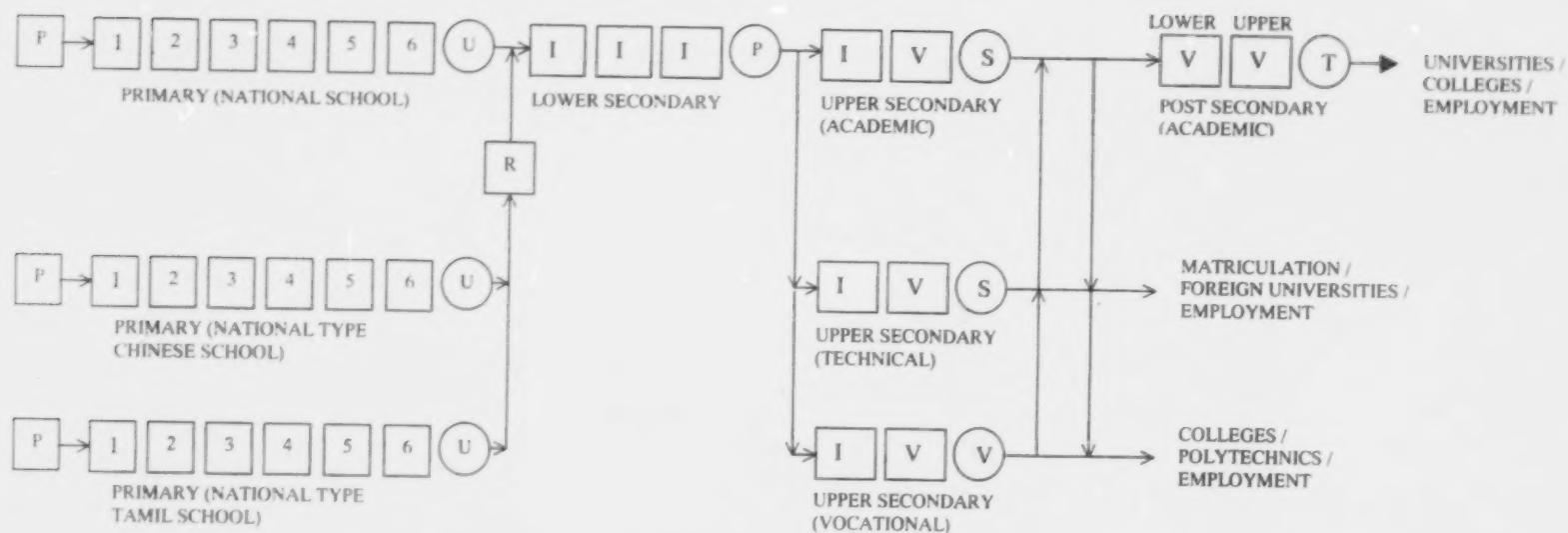
In the lower and upper secondary schools the medium of instruction is Bahasa Melayu whilst English Language is compulsory. Other languages are offered as elective subjects.

A-2. The Educational System

A-2.1 Structure

Level	Duration in years	Age range taught	Year (1996)			Percentage of relevant age group attending school			Compulsory or Non-Compulsory
			Males	Females	Total	Males	Females	Total	
Pre-school	1	5	261,174	245,131	506,305	53.0%	56.5%	54.7%	Non-Compulsory (free-education)
Elementary or Primary	6	6 - 11	1,523,311	1,437,801	2,961,112	95.8%	96.4%	96.1%	Non-Compulsory (free-education)
Lower Secondary	3	12 - 14	713,757	677,233	1,390,990	88.1%	93.3%	90.6%	Non-Compulsory (free-education)
Upper Secondary	2	15 - 16	447,254	423,001	870,255	62.1%	75.9%	68.8%	Non-Compulsory (free-education)

Diagram of the School Education System in Malaysia



A-2.2 Class size

Level	Average class size
Elementary/Primary	34
Lower Secondary	36
Upper Secondary	36

A-2.3 Teachers

Level	Number of Classroom Teachers			Teacher:Student ratio
	Males	Females	Total	
Elementary/Primary	58,519	96,310	154,829	1:19
Lower + Upper Secondary *	40,699	61,440	102,139	1:20

*Secondary school teacher teaches both lower and upper secondary levels

A-2.4 Number of Schools

Level		Government	Private	Other	Total
Elementary/Primary		7,124	n.a.	n.a.	n.a.
Secondary	Lower Secondary + Upper Secondary (General)	1,397	n.a.	n.a.	n.a.
	Lower Secondary + Upper Secondary (Religious)	47	n.a.	n.a.	n.a.
	Lower Secondary + Upper Secondary (Fully Residential)	39	n.a.	n.a.	n.a.
	Upper Secondary (Technical)	60	n.a.	n.a.	n.a.
	Upper Secondary (Vocational)	18	n.a.	n.a.	n.a.
	Lower Secondary + Upper Secondary (Special)	3	n.a.	n.a.	n.a.
	Total	1,564	n.a.	n.a.	n.a.

A-2.5 Specific School Information

	Primary	Secondary	
		Lower	Upper
Number of school days per year for students	193 days	193 days	193 days
Division of school year e.g. quarter, semester	2 semesters	2 semesters	2 semesters
Number of instruction days per week	5 days	5 days	5 days
Teachers' average number of class contact hours per week	19.75 hours	20.15 hours	20.15 hours
Time duration per teaching period (in minutes)	30 minutes	40 minutes	40 minutes

Section B: Curriculum policies

B-1. Background

B-1.1 In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies?

- i. The establishment of a uniform system of education in both primary and secondary schools.
- ii. The implementation of a national curriculum using a national curriculum using a common content curriculum oriented to the Malaysian outlook in all schools.
- iii. The use of Bahasa Melayu as the national language and as the sole medium of instruction. Bahasa Melayu is also a compulsory subject at all levels of schooling.
- iv. The implementation of common central assessments and examinations at the end of the respective periods of schooling.

B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

Our educational goals are manifested in the National Philosophy of Education. The National Philosophy of Education states that:

Education in Malaysia is an ongoing effort towards further developing the potential of individuals in a holistic and integrated manner so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving a high level of personal well-being as well as being able to contribute to the betterment of the family, the society and the nation at large.

B-1.3 What regulations govern curriculum policies in your country?

The Education Act 1996 (Act 550 Laws of Malaysia) provides the fundamental basis for curriculum policies in Malaysia. It indicates the specific laws and provisions that give direction to curriculum documents. These regulations are mandatory for all schools.

B-2. Curriculum change

B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years.

The latest major changes in the national school curriculum was the review of the New Primary School Curriculum (NPSC) in 1993. These changes are the result of monitoring and evaluation exercises carried out by the different bodies within and outside the Ministry of Education. Besides the Ministry of Education, the Universiti Sains Malaysia has also conducted a programme evaluation on the NPSC. Aspects evaluated include the implementation of the principles and philosophy of the NPSC in classroom, the readiness of teachers to accept the new curriculum, the capability of heads of schools as instructional leaders, and the suitability of materials. Findings from this evaluation exercise indicated that there was a need to review the NPSC. Thus, new aspects have been introduced particularly in the areas of curriculum and school culture. It is hoped that with the introduction of new subjects and the integration of current elements in existing subjects, future needs and challenges will be catered for. Three new subject disciplines, namely Science, Living Skills and Local Studies have been introduced. Science and Local Studies replaced Man and His Environment in the NPSC. Living Skills comprises the elements of Manipulative Skills, Commerce and Entrepreneurship, and Family Living. These subjects will equip pupils with knowledge, skills and values that will stand in good stead in effort to achieve the nation's vision of becoming an industrialised nation. These subjects aim at enabling pupils to realise the importance of science and technology, entrepreneurship, humanities, and the environment. With a renewed emphasis on integration, the New Primary School Curriculum (NPSC) now known as the Integrated Curriculum for Primary School (ICPS) was implemented in schools in 1995.

At the secondary level, the Integrated Curriculum for Secondary School (ICSS) emphasises that the curriculum will further nurture, reinforce and develop the basic skills, knowledge, values and attitudes acquired at the primary level. This entails the use of integrated approach in curriculum organisation. Integration is pursued at two levels. At one end integration is emphasised in the formal curriculum i.e. within the teaching-learning processes of each subject discipline inside the classroom. This encompasses the integration of knowledge, skills and values in each subject. At the other end integration is between the curriculum, co-curricular activities and the development of the school culture.

Another change is the reorganisation of subject disciplines. At the lower secondary level the formerly known Living Skills Subject is replaced by the Integrated Living Skills. This new subject is divided into two sections, that is the CORE and the ELECTIVE. The CORE Section comprises three components namely the Manipulative skills, Commerce and Entrepreneurship and Family Life Education, whilst the components under the ELECTIVE Section are the

Additional Manipulative Skills, Home Economics and Agricultural Science. Students are required to choose only one component from the ELECTIVES.

At the upper secondary level the list of core and additional subjects offered at the lower secondary is continued except Geography, Art Education and Integrated Living Skills. In addition to this, elective subjects are provided and students will be able to choose electives according to their interests and potential and to be sufficiently prepared for specialisation at a higher level. However, the choice of electives must fulfil certain requirements to ensure that a balance is maintained among the four groups. In addition, students are required to choose at least one of the subjects in Group II (Vocational and Technology).

Another change in the ICSS is the practice of school-based assessment (SBA) in addition to the central-based examinations conducted by the Malaysian Examination Syndicate, MOE. SBA is conducted by the school teachers for all subjects. However, the Lower Secondary School Assessment for specific subjects namely Geography, History and Art Education is a combination of centralised and school-based assessment. The SBA for these subjects follows guidelines set by the Malaysian Examination Syndicate.

B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years?

The general direction for on-going curriculum reform is to improve the quality of education in order to achieve the aims of the National Education Philosophy (NEP). The NEP has been geared towards achieving the nation's vision to prepare children to become knowledgeable, trained and skilled individuals to meet the growing needs of the millennium. It is envisaged that this can be achieved by emphasising science and technology, use of information technology, and inculcating good moral and work ethics suitable for the Information Age. The school curriculum will be designed to achieve intended learning outcomes for different ability levels.

B-3. Curriculum development processes

B-3.1 Is your country's system of curriculum development centralised, partially centralised or decentralised?

Malaysia's system of curriculum development is centralised. The MOE through its central agency namely the Curriculum Development centre (CDC) is responsible for initiating curriculum development.

B-3.2 Who is responsible for initiating curriculum development in your country?

The Curriculum Development Centre (CDC), of the MOE is responsible for research, planning, development and evaluation. Final decision on curriculum

matters lies with the Central Curriculum Committee (CCC) under the Chairmanship of the Director General of Education, with heads of all professional divisions and relevant administrative divisions of the MOE. Selected State Education Directors and Deans of the Education Faculty from local universities are also members. In wider policy matters or where there are significant financial implications, approval is required from the Educational Planning Committee (EPC) under the Chairmanship of the Minister of Education.

B-3.3 In what ways are the view points of different groups accommodated in the decision making processes?

The view points of different groups such as professionals, teachers' union and parents are accommodated in the decision making processes indirectly. Their viewpoints are expressed through participation in seminars, conferences, group discussions, consultations and memorandum.

B-3.4 In what way does national and/or local curriculum policy promote unity/cultural diversity in your country?

The National Curriculum promotes unity through the use of a single medium of instruction, the national language, and the same core subjects that form the fundamental basis of education of a pupil in all schools within the National Education System. However the cultural diversity of different ethnic in Malaysia are preserved by allowing the existent of National Type Schools using other major ethnic languages as medium of instruction.

B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity?

The Education Act, 1996 provides for the provision of special education in special schools or in regular primary and secondary schools. Special education provides educational opportunities for pupils with special needs, such as the spastic, handicapped, visually impaired, hearing impaired as well as those with learning disabilities. As a policy, the duration of schooling for children with special needs in a formal system should not be less than that accorded to pupils in regular primary and secondary schools. The Department of Special Education provides educational opportunities and facilities to pupils with special needs through the following programmes:

- Visually Impaired Programme
- Hearing Impaired Programme
- Consolidated Class Programme
- Inclusive Education Programme.

Section C: Curriculum Design

C-1. Curriculum organisation

C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

The role of the school curriculum is to work towards the holistic development of the individual, mentally, physically, spiritually and emotionally through imparting general knowledge and skills, cultivating, instilling and fostering healthy attitudes and accepted moral values. The curriculum is to bring forth the Malaysian citizen who is a balanced and well rounded individual, trained, skilful and cherishes the national aspiration for unity.

To fulfil such aspiration, the national curriculum has been formulated on a number of curriculum principles as follows:

- Continuity of education between primary and secondary schools
- General education for all
- Integration of the intellectual, spiritual, emotional and physical aspects
- Emphasis on values and attitudes development
- Upgrading the use of Bahasa Melayu and English Language
- Life long education

In total, the underlying theoretical principle of the national curriculum formulation is that of general education using an integrated approach in curriculum planning.

The curriculum is content and skill based. The contents of each subject are to reinforce and further facilitate the development of the basic skills, the acquisition of knowledge and thinking skills. Each subject must also incorporate the inculcation of moral values and attitudes and the correct use of Bahasa Melayu and other languages such as English, Chinese and Tamil.

The integrated approach is the main focus in the design of the Integrated Curriculum for Primary School (ICPS) and Integrated Curriculum for Secondary School (ICSS). The elements of knowledge, skills and values are incorporated so as to bring about the integrated development of the intellectual, spiritual, emotional and physical aspects of the individual.

The concept of integration is manifested as follows:

- Integration of skills in a subject. For example, in language teaching, the four skills are speaking (oral skill), listening (aural skills), reading and writing. Two or more of these skills can be integrated in a lesson.

- Integration of skills across a number of subjects. Drawing, for example, is one of the activities that can be adopted in Mathematics.
- Assimilation of various content in subjects. Elements of science, for example, are assimilated in the teaching of language.
- Integration of values in subjects. Cleanliness and safety, for example, are given emphasis during practical session.
- Elements taught across the curriculum include language. The environment, science and technology, patriotism, thinking skills and study skills.
- Integration of curriculum and co-curriculum. Formal classroom learning are reinforced in co-curricular activities.
- Integration of knowledge and practice. For instance, knowledge acquired can be put into practice outside the formal classroom situation.
- Integration of past experiences and the newly acquired experience of pupils.

C-1.2 Please describe whether your curriculum is mainly designed to:

- **be implemented by teachers as written OR;**
- **be interpreted by teachers and implemented with variations OR;**
- **give teachers total freedom to create the curriculum OR;**
- **some combination of the above.**

The curriculum i.e. the syllabus content is mainly designed to be implemented by the teachers as written. However, teachers are free to determine the teaching and learning process suitable to the ability of their students.

C-1.3 Basic structure of the current and/or future school curriculum

Primary Education(Year I to Year VI)

The Integrated Curriculum for Primary School (ICPS) is divided into 2 phases of three years each. Phase I comprises year 1,2, and 3 while phase II of years 4, 5, and 6. The ICPS consists of three areas namely communication, man and his environment and self-development. These three areas are subdivided into six components, namely:

- Basic Skill
- Humanities and Environment
- Arts and Recreation
- Spirituality, Values and Attitudes
- Living Skills
- Co-curriculum

The subjects taught in primary schools and time allocation are as follows:

NATIONAL SCHOOLS	PHASE I (Year 1 – 3)	PHASE II (Year 4 – 6)
Bahasa Melayu	450	300
English Language	240	210
Mathematics	210	210
Islamic Education	180	180
Moral Education	180	180
Music	60	60
Art Education	60	60
Health and Physical Education	90	60
Science	-	150
Local Studies	-	120
Living Skills	-	60
Assembly	30	30
Total	1320	1440

NATIONAL TYPE SCHOOLS (Chinese/Tamil)	PHASE I (Year 1 – 3)	PHASE II (Year 4 – 6)
Bahasa Melayu	270	150
Chinese/ Tamil Language	450	300
English Language	-	90
Mathematics	210	210
Islamic Education	150	150
Moral Education	150	150
Music	60	60
Art Education	60	60
Health and Physical Education	90	60
Science	-	150
Local Studies	-	120
Living Skills	-	60
Assembly	30	30
Total	1320	1440

Note : Time allocation is in minutes per week.

Secondary Education

Secondary education is basically an extension of primary level education. Education at this level is general in nature and is divided into **lower** and **upper secondary** level, and a special one year transition programme known as '**Remove Class**' for pupils from the National type Chinese and Tamil Primary schools. The selection of the content begins with the assumption that the acquisition of **language** and **mathematics skills** is the basic necessities of the curriculum.

The Integrated Curriculum for secondary Schools (ICSS) provides opportunities for students:

- To nurture, reinforce, and develop basic skills, knowledge, values and attitudes that have been acquired at primary level
- To develop their interests and talents
- To have a 'common learning programme' or 'common core subjects'.

i. Remove Classes

Remove class is a transition year for pupils from the Chinese and Tamil medium schools to acquire sufficient proficiency in Bahasa Melayu. However, pupils who have performed well in the Primary Assessment Test (UPSR) are allowed to proceed directly to Form 1. The subjects taught in remove class and the time allocated for them are as follows:

Subjects	Total time per week (minutes)
Bahasa Melayu	520
English Language	200
Chinese / Tamil Language	120
Practical Use of Bahasa Melayu	440
Art Education	80
Physical and Health Education	80

ii. Lower Secondary Level(Form 1-Form III)

This level covers a period of 3 years. At the lower secondary level subjects are categorised as Core and Elective subjects.

The list of subjects for the lower secondary level and the time allocation for each subject are as follows :

Subjects	Total time per week (minutes)
Bahasa Melayu	240
English Language	200
Mathematics	200
Islamic Education*	160
Moral Education**	120
Science	200
Integrated Living Skills	160
Geography	120
History	120
Physical and Health Education	80
Art Education	80
Chinese/Tamil Language	120
Arabic Language (Communication)	240

* For Muslim students

** For non-Muslim students

iii. **Upper Secondary (Form 4 – 5)**

Education at this level covers a period of two years. Besides following the general education programme, students begin to specialise in the science, arts, technical, vocational and religious disciplines. Specific schools are designated for each discipline. These schools are academic schools, technical schools and vocational schools.

a. **Secondary Academic Schools**

The subjects offered under the ICSS are categorised into core, additional and elective subjects. The list of subjects for upper secondary level and time allocation for each subject are as follows:

Core Subjects	Time allocation per week (minutes)
Bahasa Melayu	240
English Language	200
Islamic Education *	160
Moral Education**	120
Mathematics	200
Science	160
History	120
Physical and Health Education	80

* Islamic Education for Muslim students

** Moral Education for non-Muslim students

Additional Subjects	Time allocation per week (minutes)
Chinese language	120
Tamil Language	20
Arabic Language (Communication)	240

Elective Subjects	
Group I Humanities	Time allocation per week (minutes)
Malay Literature	120
Literature in English	120
Geography	120
Art Education	120
Arabic Language (Advanced)	160
Group II Technical & Vocational	Time allocation per week (minutes)
Principles of Accounts	160
Basic Economics	120
Agricultural Science	160
Home Science	160

Invention	
Additional Mathematics	160
Mechanical Engineering Studies	160
Civil Engineering Studies	160
Electrical & Electronic Engineering Studies	160
Engineering Technology	160
Engineering Drawing	160

Group III Science	Time allocation per week (minutes)
Additional Science	160
Physics	160
Chemistry	160
Biology	160
Group IV Islamic Studies	Time allocation per week (minutes)
Islamic Tasawwur	160
Al-Quran & As-Sunnah	160
Islamic Syariah Education	160

b. Secondary Technical Schools

Secondary technical education is aimed at producing an adequate pool of qualified students who excel in mathematics and science, as well as in basic engineering subjects. Technically-biased academic education is provided by secondary technical schools. Students in secondary technical schools follow the same core subjects of the upper secondary curriculum but only choose the elective subjects from Group II (Vocational & Technology). Admission to these schools is through application based on the *PMR* results. Only students with strong background in Mathematics and Science are selected. These schools also provide courses at the sixth form level. Students from these schools are expected to continue their studies in science and technology-related courses at the diploma and degree levels as well as in advanced skills.

c. Secondary Vocational Schools

Secondary vocational schools provide courses in pre-employment skills as well as general education in order to give its leavers flexibility and mobility in working life. These schools offer courses in two streams, namely, the vocational education stream and the skills training stream.

In the vocational education stream, emphasis is given to general and technical subjects in order to provide students with a good foundation for

admission into polytechnics or other institutions of higher education without significantly affecting their vocational skills development.

Vocational Education Stream

Students in the vocational stream pursue courses with greater emphasis upon academic subjects. They sit for the Malaysian Certificate of Education (Vocational)[*SPM(V)*], an academic-vocational version of the *SPM* examination. The subjects offered at the Vocational Education Stream are as follows:

ACADEMIC	VOCATIONAL	
Core Subjects	Areas	Courses
Bahasa Melayu English Language Science Mathematics Islamic Education * Moral Education** (Syllabus is similar to that offered at academic schools)	Engineering Trades	Electrical Electronics Machine Shop Practice Welding and Metal Fabrication Automotive Building Construction Refrigeration & Air Conditioning
	Home Economics	Catering Fashion Design/Dressmaking Beauty Culture Child Care Bakery and Confectionery
	Commerce	Office Management Business Management
	Agriculture	Ornamental Horticulture Farm Machinery Farm Management

* For Muslim students

** For non-Muslim students

Skills Training Stream

In the skills training stream, more emphasis is given to practical work to develop competency in trade skills as required by the related industries. Students are prepared for the National Vocational Training Certificate(NVTC), a skill assessment conducted by the National Vocational Training Council, Ministry of Human Resources. These students are expected to pursue industrial employment after completing their training. Two types of courses are conducted:

- The two-year course
- The one-year course

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The two-year course prepares upper secondary students for the NVTC Certificate in the areas listed in the table below.

• Refrigeration and Air-Conditioning Mechanic (Domestic) • Refrigeration and Air-Conditioning Mechanic (Commercial) • Motorcycle Mechanic • Motor Mechanic • Arc welding • Gas Welding • General Machinist • Turner • General Mechanical Fitter • Building Construction	• Carpentry and Joinery • Furniture Making • Radio and Television Mechanic • Electrician (Domestic and Industry) • Agriculture Machinery Mechanic • Dressmaking • Hairdresser • Beautician • Food Preparation • Food Service
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The one-year course in specific trades offers holders of *SPM(V)/SPM* certificates and NVTC certificate skills training in the areas listed in the following table.

• Domestic Plumbing • Draftsman – Civil Engineering • Draftsman – Architecture • Signcraft • Tiling and Flooring • Advanced Furniture Making • Instrument maintenance (Electronics) • Industrial Electronics • Spray Painting and Panel Beating	• Tool and Dye Making • Millwright • Mechanical Drafting • Advanced Automotive (Diesel) • Advanced Automotive (General) • Advanced Refrigeration and Air Conditioning • Advanced Welding • Foundry Practice
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iv. The Sixth Form

The Sixth Form Programme offers academic, technical and religious subjects and it covers a period of two years. It prepares students for the public post-secondary school examination, the Higher Certificate of Education (*STPM*).

Co-Curriculum

Co-curriculum is an extension of the classroom teaching and learning process. Co-curricular programmes are regarded as an integral part of the school curriculum. The activities are structured to provide opportunities for students to increase, reinforce and put into practice the knowledge, skills and values acquired in the classroom. There are three types of co-curricular activities, namely, uniformed bodies, clubs and sports.

C-1.4 Integration

The aspects incorporated in all subject areas include:

- Drug prevention education
- Language
- Family Health Education
- Patriotism and Citizenship Education
- Science and Technology
- Values
- Environmental Education Creative and critical thinking skills
- Parenting Education
- Road Safety Education
- Future studies
- Consumer Education
- Study skills
- Health Education

The most prominent is the integration of moral values. They are universal and in line with the various religions, tradition and norms of a multi-racial society. These values are also concerned with spiritual elements, humanly and citizenship. They are:

- Kindness
- Self-reliance
- Integrity
- Respect
- Love
- Justice
- Freedom
- Courage
- Mental and Physical Cleanliness
- Honesty
- Diligence
- Co-operation
- Moderation
- Gratitude
- Rationality
- Public spiritedness

C-1.5. Specific Curriculum areas

Themes/ Areas	Way of dealing with the theme / area	Level of schooling
Moral values	as separate subject and across curriculum	all levels
Foreign Languages	as a separate subject area	upper secondary
Local/Ethnic Language	optional subject	all levels
Computer / Information Technology	as a separate subject as tools of learning (SAL & CAL)	all levels

Themes/ Areas	Way of dealing with the theme / area	Level of schooling
Health Education (Drugs, HIV, Family Health)	as a separate subject integrated across curriculum	all levels
Environmental Education	integrated across curriculum	all levels

C-1.6 Curriculum coverage

Curriculum coverage in Malaysia is considered to be wide. But there are also pressures from the public to include new subjects such as Environmental Studies, Sex Education, Consumer Education and Information Technology. There are also situation where schools are asked to take responsibility for a wide range of social issues. For example drug abuse and AIDS.

C-1.6.1 Issues with regard to pressure on the coverage of the curriculum.

The most important issue that arises from the coverage of the curriculum is that teachers might not give priority or importance to the areas/themes.

C-1.6.2 What steps are taken to address these concerns?

Among the steps taken is to teach the themes/areas by integrating them in various subjects and across the curriculum.

SECTION D : CURRICULUM IMPLEMENTATION

D-1. Teacher Professional Development

D-1.1 Pre-service teacher development

D.1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

The Malaysian education system makes it compulsory for those who wish to teach in the school sector to have a pre-service teacher education qualification as to ensure the quality of education provided is able to fulfil the aspirations of the Malaysian nation. The plans and implementation of teacher education programmes to meet teacher requirements of primary and secondary schools are placed on the responsibility of the Teacher Education Division of the Ministry of Education. The division manages 31 teacher education colleges throughout the country. Its functions are :-

- To formulate policies and guidelines on teacher training
- To identify and determine the expertise, levels of skills required, type of courses, participants, locations and duration of training programmes.

- To formulate, implement and evaluate the curriculum, examinations system and selection of participants.
- To plan, co-ordinate, monitor and evaluate the staff development programmes.
- To supervise the administration, finance, staff and personnel.

D.1.1.2 Is there a prescribed national curriculum/guidelines/ framework for pre-service teacher education in your country?

There are prescribed national curriculum/guidelines/frame work for pre-service teacher education and they are all prepared by the Teacher Education Division of the MOE. All the 31 teacher training colleges have to adhere to such guidelines.

D.1.1.3 What is your country's programme for pre-service teacher development?

There are three types of pre-service courses conducted at the teachers training colleges, which are :-

- Diploma in teaching [Primary] - 3 years
- Post Diploma Certificate in Teaching [Primary and Secondary] - 1 year
- Post graduate Diploma in teaching [Secondary] - 1 year

The minimum entry requirements for acceptance in the programmes are :

- SPM/ MCE (Malaysian Certificate of Education) or SPVM/MCVE (Malaysian Certificate of Vocational Education) with credits in Malay language and four other subjects.
or
- STPM/HSC (Higher School Certificate) with 3 credits which include a pass in Malay Language at SPM/MCE level.

D.1.1.4 Pre-service teacher education programmes usually include components of education foundations; general methods courses; subject content courses; specific methods courses; and teaching practicum. Please describe the general components of the pre-service teacher education programme in your country.

The Malaysian teacher pre-service programmes which are the Diploma in Teaching , Post Graduate Diploma in Teaching and Post Diploma Certificate in Teaching have five basic components:

- Teacher Dynamics
- Professional Studies
- Subject Majors/Minors/Electives

- Self -Enrichment
- Teaching Practice
- Co-Curricular Activities

The subjects offered to trainee teachers for each of the programmes are as follows :-

DIPLOMA IN TEACHING

SUBJECTS		
MAJOR	MINOR	ELECTIVE
• Malay Studies • English Studies • Chinese Studies • Tamil Studies • Islamic Studies • Arabic Studies • Music • Mathematics • Science • Physical & Health Education • Special Education for Children with Learning Difficulties • Special Education for the Blind. • Special Education for the Deaf.	• Malays Studies • English Studies • Chinese Studies • Tamil Studies • Islamic Studies • Moral Studies • Art • Mathematics • Science • Local Studies • Living Skills • Physical & Health Education • Arabic Language • Literature for Children • Pre-School Education • Special Education For Children with Learning Difficulties	• Art • Local Studies • Music • Mathematics • Science

POST GRADUATE DIPLOMA IN TEACHING

SUBJECTS	
MAJOR	ELECTIVE
• Malay Studies • Malay Literature • English Studies • Chinese Studies • Tamil Studies • Islamic Studies • Arabic Studies • Qur'an & Sunnah • Music • Economics • Mathematics • Science • Physical & Health Education • Geography • History • Commerce	• Malay Literature • English Literature • Chinese Literature • Tamil Literature • Malay Language • Arabic Language • Quran & Sunnah Education • Moral Education • Tasawwur Islam • Syariah Islamic • Science • Mathematics • Art • Invention & Design • Information Technology • History

SUBJECTS	
MAJOR	ELECTIVE
• Accountancy • Art • Living Skills • Home Economics • Engineering Technology • Information Technology	• Geography • Commerce • Accounting • Foundation in Economics

POST DIPLOMA CERTIFICATE IN TEACHING SUBJECTS	
MAJOR	ELECTIVES
• Science • Mathematics • Art • Islamic Education • Living Skills • Information Technology	• Guidance and Counselling • Physical and Health Education • Moral Education

D.1.1.5 Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that the pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education?. Please give specific examples to illustrate your answer.

In order to ensure that the pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education. The Teacher Education Division has upgraded the pre-service teacher training curriculum by, firstly, emphasising on some of the latest teaching and learning process like Critical and Reflective Discussion, Brainstorming, Conferencing, Problem-Solving, Mind-Mapping and Awareness Raising. Secondly, by integrating the use of technology especially in the use of computer in the training of teachers.

D.1.2 In-service teacher development programmes

D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?

There are two types of in-service professional development for teachers once the trained teachers from the universities or teacher training colleges are employed in national education system and they are as following:-

- Special Diploma [for non-graduate teachers][Primary and secondary] – 1 year
- Professional Development Courses [Primary and Secondary]– 14 weeks

The 1 Year Special Diploma Course has the following curriculum:

Curriculum :

- Teacher Dynamics
- Subject Majors
- Special Project
- Self -Enrichment

Subject Majors :

- Mathematics
- Science
- Malay Language
- Malay Literature
- Islamic Studies
- Arabic
- Living Skills
- Special Education
- Physical & Health Education
- Management of Resource Centre
- Engineering Technology
- Commerce/ Accounting
- Home Economics
- Guidance & Counselling
- Information Technology
- Music
- Art
- Educational Technology
- TESL

The curriculum offered in the 14 - week Professional Development Course is as follows :

Curriculum

- Teacher Dynamics
- Majors
- Project Assignments
- Self -Enrichment

Subjects

- Remedial in Teaching & Learning of Malay language
- Enrichment in Teaching & Learning of Malay language
- Assessment in Malay Language
- Drama in Malay Language Education
- Malay Literature
- Computer in Malay Language Education
- Media in Malay Language Education
- Teaching in Reading & Writing
- Malay Language Education (P)
- Malay Language Education (S)
- Pedagogy in Islamic Studies
- Qiraat & Taranum
- Teaching & Learning of Jawi
- Tamil Studies
- Guidance & Counselling
- Remedial Education
- English Immersion (P)
- Science Education (P)
- Mathematics Education (P)
- Remedial in Mathematics
- Pre-School Education
- Computer in Education
- Remedial & Enrichment in Islamic Education
- Special Education
- Media in Islamic Education
- Computer Studies
- Music
- Special Programmes for teachers teaching in schools for the aborigines
- Training for Smart School Teachers

Participation in both courses are voluntary. The Teacher Education Division is responsible for advertising the courses in newspapers or informing schools as well as handling the selection procedure for such courses.

D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?

Financial support is given to teachers who participate in the 1 year Special Diploma Course and 14 -week Professional Development Course. Upon attending both courses the teachers are given monthly allowance as well as full-pay salary leave. The Scholarship Division of the Ministry of Education is responsible for financial matters.

D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?

Distance education and part time study at colleges and universities have played a significant role in the professional development of teachers in Malaysia. These modes of study are particularly preferred by teachers in remote areas or the primary or unqualified teachers who wish to improve their qualification and hence salary increased.

To promote professional development, Teacher Resource Centre and State Resource Centres are set up. Training programmes are carried out in these centres to help teachers in their professional development.

D-1.2.4 Incentives for teachers to participate in-service-training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?

There are two main reasons for participating in in-service course by the Malaysian teachers. The first one is for personal enrichment that is to increase knowledge and expertise in their area of speciality. The second one for qualification improvements.

For example, the non-graduate teachers who participate in the 14 -Week Courses at the teachers' training colleges will be able to enter universities as second year students.

D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiative in schools. For example, is compulsory/voluntary in in-service training provided; or teacher guides to the curriculum published etc.

- i. In-service training is compulsory for teachers. The most common strategy used to ensure that teachers effectively implement new curriculum initiative is through :

Cascade Training Model

It is a quick way of getting information spread down the roots. Selected key personnel from each state attend training courses at national level at the Curriculum Development Centre or Examination Division of the MOE. These key personnel then conduct courses at the state/district. Teachers selected to attend courses will disseminate information to fellow teachers at their schools.

- ii. To help teachers implement new curriculum programmes, instructional materials such as teacher's guide book for the respective subjects and teaching-learning modules are published by the CDC and disseminated to all schools.

D-2. Resource Support

D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum.

- (1) Government directly sponsoring the writing, production, and distribution of text books.
 - (2) Government approving a particular selection of books
 - (3) The choice of textbooks entirely made by schools and/or teachers
 - (4) Other methods – please specify.
- Please indicate which of the above apply to your country.

In Malaysia, the development and supply of textbooks use the following methods :

1. Government directly sponsoring the writing, production, and distribution of text books.
2. Government approving a particular selection of books
3. The choice of textbooks entirely made by schools and/or teachers

D-2.2 What other teaching/learning support materials are available for schools (e.g. teacher guides, video tapes, computer software, CD-ROMS, etc)?

Other types of educational resources or supplementary materials are also in used in schools are films, slides, video tapes, software and CD-ROMs. These support materials are supplied by the MOE or purchased privately by schools in the open market.

D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise , etc)

- i. Development of supplementary materials by Government Agency(e.g. the CDC):
 - Drafting of materials (workshops and discussions)
 - Trial/pilot study(selected clients)
 - Quality control
 - Printing
 - Dissemination
- ii. Development of supplementary materials by private enterprise etc.

The MOE evaluates supplementary materials developed by private enterprise and recommends for adoption in schools.

D-2.4 How are textbooks and other materials provided to students? For example : parents buy the textbooks; government provides the materials for the students to use; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

Textbooks are provided to students by the government through the textbook loan scheme. Beneficiaries are determined by parents' income. Pupils' parents with monthly income of less than RM 1000.00 (US\$400.00) is eligible to receive textbook on-loan scheme.

D-3 Community Support

D-3.1 In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO's, the religious community etc) supporting curriculum implementation? Please give specific examples.

Community involvement in curriculum implementation is in the form of

- financial support
- sponsorship in competitions and innovations
- donation of equipment, books
- expertise

D-4 Classroom Strategies

D-4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

Teachers are introduced to new teaching approaches/strategies in the pre-service and in-service training. For in-service training, the cascade system is adopted. Teachers trained at the Ministry level disseminate the new knowledge gained to the resource teachers at the state level, who then pass down the knowledge to the teachers in schools.

D-4.2 What are the major issues and concerns about teaching methods in your country?

The major issues and concerns about teaching methods are:

- teacher dominance leads to lack of active student participation
- teaching is directed toward test/examination
- lack of higher order questioning skills by teachers
- lack of emphasis on thinking skills
- variety of teaching-learning materials not exploited meaningfully
- heavy reliance on commercially produced teaching-learning materials which are not suited to student's ability
- innovative approach toward effective teaching and learning not employed

D-5 School-Based Student Assessment

D-5.1 How is classroom assessment data collected on the performance of each student in your country?

Classroom assessment data is collected using the following:

- pencil-paper tests (monthly or term)
- observation schedules
- checklists
- rating scales
- interviews
- portfolios
- projects and artefacts
- questioning

D-5.2 In your country what are the main purpose(s) of assessment at the school level?

SBA is conducted to determine to what extent intended learning outcomes established by the instructional objectives are achieved and whether learning experiences of students are taking place. Teachers can determine what skills or competencies a student has mastered. Apart from these SBA also provides a means of pre-assessing learners' needs, monitoring learners' needs as well as

diagnosing learning difficulties. Teachers are able to identify the strengths and weaknesses of each student and then take appropriate follow up actions. Teachers can plan and prescribe instructions accordingly, provide remedial support and help students to overcome learning difficulties/problems as well as reinforce learning. Assessment results also help teachers to evaluate the effectiveness of their teaching.

D-5.3 In your country, how is student performance rated?

Students' performance is rated in the form of grades, percentage and description whenever appropriate. For reporting of students' performance teachers can use a combination of the above to give a more comprehensive report of what students have done and achieved. These include academic performance, involvement in sports and curricular activities as well as personal attributes. Reports of assessment results may be presented in writing or orally to concerned parties.

D-5.4 Does your country have any external examination system? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of school curriculum.

At the end of Year III, students sit for the Level One Assessment or *Penilaian Tahap Satu (PTS)* which is administered jointly by the Examination Syndicate and the school. *PTS* is not compulsory as students can opt not to sit for it. Those with high scores are selected for double promotion to Year V. At the end of Year VI students sit for a common assessment i.e. the Primary School Achievement Test or *Ujian Pencapaian Sekolah Rendah (UPSR)*. All students are automatically promoted to secondary education. The Lower Secondary Assessment or *Penilaian Menengah Rendah (PMR)* is held at the end of Form Three. *PMR* is a combination of centralised and school-based assessment. The Malaysian Certificate of Education or *Sijil Pendidikan Malaysia (SPM)* is held at the end of Form V. Students in academic and technical schools sit for the *SPM* examination. Students in vocational education stream sit for the Malaysian Vocational Certificate of Education or *Sijil Pendidikan Vokasional Malaysia (SPVM)*. To some extent these central examinations result in negative backwash to the curriculum. Teacher teaches to the tests in particular to the examination years (Year VI, Form III, Form V).

D-6 Barriers and Constraints to Effective Curriculum Implementation

D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country?

The CDC's KBSR and KBSM guidelines for implementation strongly suggest group work as a teaching-learning strategy but large size classes of approximately 40-50 students hinder teachers from practising it. Students are usually taught as a class even when they are organised into groups. Group work which is intended to

be a pedagogic change is not functioning as suggested by the planners but is rather treated as simply a reorganisation of seating arrangement of the students.

Teacher attitude is another constraint to effective curriculum implementation. Most teachers prefer traditional approaches despite having been exposed to new curricular concepts and student-centred teaching approaches.

The emphasis on examination results. Schools focus on academic excellence in public examination while parents are concerned about their children's grades and test scores. As a result learning is directed towards preparing students for examinations.

Teachers are overdependent on commercially-produced material rather than teacher-made materials. These commercially-produced material may not be suitable to students' ability.

Wrong placement of teachers is also a barrier to effective curriculum implementation. Qualified teachers are not teaching their subject option but have to teach other subjects. Some teachers cannot teach effectively as they do not have the knowledge and skills to teach the subjects.

The weakness in the dissemination strategy is another constraint. The cascade system of using key personnel has resulted in the dilution of messages which the curriculum planners and developers have conceptualised.

Section E: Curriculum Monitoring and Evaluation

E-1 Monitoring and Evaluation

E-1.1 What processes are used to monitor curriculum implementation in your country?

Both formative and summative evaluation are employed in evaluating the curriculum. Evaluation is normally carried out in every phase of curriculum development process in order to provide feedback for adjustment, modification and correction. Monitoring and evaluation is carried out by the various divisions within the Ministry of Education i.e. the Federal Inspectorate, Examination Syndicate, Curriculum Development Centre, the Schools Division, Textbook Division, Teacher Education Division and Educational Planning and Research Division. The area of focus differs for each division. Seminars and conferences for educators from all levels of implementation are also organised from time to time to get immediate feedback on the school curriculum.

E-2 Curriculum Evaluation

E-2.1 Describe the mechanisms/major tools used in your country for curriculum evaluation?

In many of the evaluation studies carried out by CDC, a range of techniques is used to gather information related to subject syllabus, teaching and learning processes and evaluation of packaged instructional materials. The selection of a particular technique or a combination of techniques depends largely on the objectives and nature of the evaluation study. These techniques include:

- interviews with principals, teachers, students and parents
- checklists
- questionnaires
- observations
- documentary analysis
- tests

E-2.2 How are the results of the national curriculum evaluation used in your country?

The results of the formative evaluation studies undertaken are used by curriculum planners to revise and improve the implementation of a curricular programme. Summative evaluation on the other hand is concerned with the effectiveness of the whole curricular programme. The results of summative evaluation are meant for major decisions on whether to continue/expand/modify or terminate a certain curricular programme.

E-3 Monitoring of Local Curriculum

E-3.1 Does a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents? If you have a locally controlled curriculum component, is there any monitoring of this/ if so, how is this done?

Malaysia does not have locally controlled curriculum component. All curriculum matters come under the responsibility of the MOE. However state education departments, district education offices and schools are encouraged to initiate their own strategies and activities for the successful implementation of the centralised curriculum.

E-4 Student Assessment for Curriculum Monitoring

E-4.1 What types of assessment are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level?

Results of centralised examinations held at the end of Year VI, Form III and Form V though summative, can be used to evaluate the effect of the curriculum.

Examination results provide feedback to the planners to improve the achievement of the students if required. Based on the analysis of students' scores by items, students' achievement in the various skills can be inferred. Should the performance drop below the expected standard, related divisions of the Ministry will look into the problem and take prompt actions in order to improve students' achievement in the future.

Schools in some districts sit for a standardised test prepared by the District Education Office. These tests are administered on a regular basis especially to find out the performance of students in certain skills e.g. reading, writing or mathematics skills. This is done more for formative purposes. Evaluation results prompt concerned parties to initiate strategic remedial activities to ensure students master the required skills.

The various divisions of the Ministry also carry out related studies to find out the impact of the curriculum on students' achievement. These studies focus on specific aspects of interests and information is commonly collected using surveys, class observations or test items. Information obtained reflects the effect of the curriculum and the Ministry have to take follow-up actions such as reviewing the syllabus, textbooks, teaching materials and improving teaching-learning strategies from time to time.

E-5 Research and Curriculum Development

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

A National Seminar on the Evaluation of the Implementation of the Integrated Curriculum for Secondary School(ICSS) was held on the 2-6 September 1996. The scope of discussion encompassed curriculum management, implementation, teacher training, curricular innovations and the assessment system. Recommendations from the seminar include:

- emphases on KBSM should be focussed continually with value added elements in line with the current and future needs
- management skills of school leaders are to be improved and upgraded
- training programmes are to be organised to upgrade leadership management among key personnel and teachers
- improve the infrastructure for implementation of elective subjects in schools to cater for the students' different choices
- motivate students to select the science subjects offered and prepare them for excellent performance
- subjects related to information technology and applied sciences are to be introduced as soon as possible

- placement and transfer of option teachers should take consideration the needs of the school
- the curriculum content should be reviewed to include futuristic elements as well as lateral, critical and analytical skills
- teacher curriculum and approaches to teaching and learning should be reviewed and its quality improved to produce competent teachers
- continual consolidation courses and exposures to latest development and information on education, pedagogy and innovations are to be given to teachers
- creative and critical thinking should be emphasised in the teacher education programme
- the assessment system should be reviewed to include a more effective approach to assess the overall development of the students
- inculcation of moral values are to be emphasised in the teacher education programme and the school curriculum

Section F: Further Comments

The education and training systems will continue to be geared to mould individuals to become better Malaysians with the right attitudes and to equip them with the knowledge and skills necessary in the Twenty First Century and to make Malaysia a developed nation by the Year 2020. To meet the challenges of the Twenty First Century and Vision 2020, teaching and learning practices and school management will have to be reinvented in order to prepare individuals who are technologically literate and critically thinking workforce. This transformation will entail changing the school culture from one that is predominantly memory-based to one that stimulates thinking , creativity, innovative, caring and informed.

The goals and objectives of education will therefore;

- **Provide all-round development** with provision for individual abilities, offering curriculum that is integrated, multidisciplinary and interdisciplinary
- **Emphasise intellectual, emotional, spiritual and physical growth** concentrating on thinking, developing and applying values, and using correct language across the curriculum
- **Produce a technologically literate workforce** that can think critically, are creative, innovative and are able to use technology effectively
- **Democratisation of education** offering equal access to learning opportunities and accommodating different abilities, styles and paces

To realise the above goals and objectives and to prepare for the Twenty First Century the curriculum will be designed to:

- Help students to achieve overall balanced development
- Integrate knowledge, skills, values and correct use of language
- Achieve intended learning outcomes for different ability levels
- Acquire multidisciplinary, thematic, and continuous learning

- Foster acquisition of knowledge, skills, and attitudes suitable for the Information Age

Pedagogical approaches in the classroom will emphasise thinking and creativity. Activity-based teaching and learning processes such as problem solving, creative, innovative, analytical and decision making using high level questions that help generate thinking will be dominant. Student centred strategies have to be reflected in the classroom environment where the teacher will often play the role of 'a facilitator of learning' and 'a guide by the side'.

The use of leading edge technology will be emphasised in the teaching and learning processes to foster the development of technologically literate knowledge workers for the Information Age. The Ministry of Education has ventured into various pilot projects to gauge the different approaches and possibilities for the effective use of IT in education.

The scope of assessment has to be more holistic. It will not only cover achievement progress but also readiness, aptitude and talents to provide a complete information regarding the student's performance. It will also be learner-friendly and open to continuous improvement. Assessment of teaching-learning will use:

- Element-based and criterion-referenced items
- Multiple approaches and instruments
- School-based assessment
- Student's folios

New Zealand

Robyn Baker

Colin Brown

Section A: Background Information

The purpose of this section of the questionnaire is to collect general information about your country and its education system. Please provide the following information on your country, using 1998 figures or else those that are most recently available (please indicate year).

A-1. General information

A-1.1 Size of population

	Year (1997-1998)
Total 1998 Projection (Resident)	Annual population growth rate
3,798,000	1%

A-1.2 Indicate the total number of children/youth in the following age groups, using the latest available data.

	Year (1996 Census - Usually Resident)		
Age Group	Males	Females	Total
0 - 4yrs	144,111	135,489	279,603
5 - 9yrs	147,723	140,571	288,291
10 - 14yrs	135,663	128,520	264,186
15 - 19yrs	133,572	129,405	262,977

A-1.3 Indicate the major ethnic and language groups in your country, as a percentage of total population.

1996 Census (Usually resident)	
Ethnic group	%
European	79.6
Maori	14.5
Pacific Islands	5.6
Asian	4.8

NOTE: where an individual reports more than one ethnic group, he/she is counted more than once.

1996 Census (Usually resident)	
Language group	%
English	90.9
Maori	4.2
Samoan	2.0
French	1.2
German	.9
Cantonese	.9
Dutch	.8

NOTE: where an individual speaks more than one language, he/she is counted under each applicable group.

A-1.4 List the major religious groups in your country

Anglican = 18.42%; Catholic = 13.79%; Presbyterian = 13.36%

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$).

NOTE: In NZ dollars. 1995/96 = 4,949 million NZ dollars % GDP = 5.4: 1996/97 = 5,335 million NZ dollars %GDP = 5.6.

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

English and Maori

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language(s) are taught and at what levels?

Languages of instruction are English and Maori if enrolled in Maori Medium education, either bilingual (English and Maori) or immersion (Maori only). In 1997 3200 out of 700,000 students (yr 1-13) were involved in total in Maori medium education (ie bilingual and immersion).

A-2. The Educational system

The following data has been classified by ISCED level as defined by UNESCO.

A-2.1 Structure

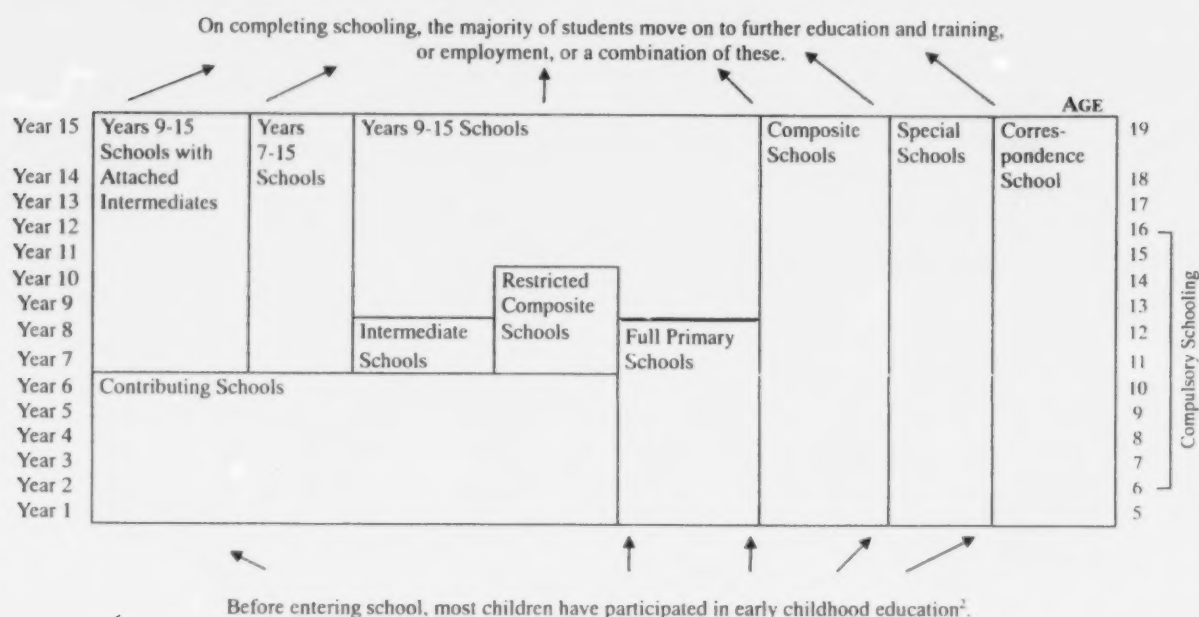
Collection period: July 1997
Year (Feb-Dec 1997)

Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-Compulsory
			Males	Females	Total	Males	Females	Total	
ISCED 0 Pre-school*	2-3	2-4	69090	64950	134040	80%	79%	79%	Non-Compulsory
ISCED 1 Elementary or Primary	6	5-10	183841	173728	357569	100%	100%	100%	Compulsory
ISCED 2 Lower Secondary	4	11-14	113912	108064	221976	100%	100%	100%	Compulsory
ISCED 3 Upper Secondary#	3	15-17+	102805	108566	211371	77%	74%	79%	Compulsory before age 16

*Early childhood education is available to children aged 0-2, however, ISCED level 0 defines pre primary education to include children aged 2 and over only

#Population participation calculated using ages 15-17 only

Figure 1: Structure of the Compulsory Schools Sector in New Zealand¹



A-2.2 Class size

Level	Average class size Not Available
Elementary/Primary	
Lower Secondary	
Upper Secondary	

A-2.3 Teachers Number of full-time and part-time classroom teachers

Level	Number of Classroom Teachers			* Teacher:Student ratio
	Males	Females	Total	
Elementary/Primary	3545	15978	19523	20.4
Lower Secondary	4858	8107	12965	19.7
Upper Secondary	7369	8796	16165	15

*The teacher:student ratios have been calculated using full-time equivalents (FTE)

¹ Information detailed in Section A3 will help in the interpretation of Figure 1.

² Early Childhood Education, with an official curriculum (*Te Whariki*), is available from early childhood centres and is for infants, toddlers and young children.

A-2.4 Number of Schools

Level	Government	Private	Other - please specify	Total
Primary and Intermediate ³	2235	58		2293
Secondary ⁴	320	18		338
Composite ⁵	59	42		101
Special	46	2	4	52

A-2.5 Specific School Information:

	Primary	Secondary	
		Lower	Upper
Number of school days per year for students	197	190	190
Division of school year e.g. quarter, semester	4	4	4
Number of instruction days per week	5	5	5
Teachers' average number of class contact hours per week	25	22.25-25	22.25
Time duration per teaching period (in minutes)	60	50	50

A-3. Any other relevant background information

Please provide here any other background information that will assist in the interpretation of your country response.

(the following information is adapted from *New Zealand Schools Nga kura o Aotearoa* 97 (Ministry of Education, 1998).

In New Zealand, schooling is compulsory for children between their sixth and sixteenth birthdays (Figure 1). Exemptions may be granted for students up to their seventh birthday if they are unable to attend school because of travelling distance. Students older than six may be granted exemptions to receive schooling at home equivalent in standard to that offered in state schools. In practice nearly all New Zealand children commence school on their fifth birthday.

School organisation

At July 1997, there were 2784 schools in New Zealand; 2664 were state or state integrated schools (see below for definition), and the remaining 120 were private (independent). State schools are fully funded by the Government, as are integrated schools except for the funding of some property-related expenses. Fully registered private schools receive partial funding from the Government.

The majority of New Zealand state and integrated schools provide education at the primary level. There were 1198 full primary schools, 896 contributing schools and 141 intermediate schools at 1 July 1997.

Full primary schools offer education from new entrant level (Year 1) through to the end of Form 2

³ Primary and Intermediate schools cater for students from year 1 to year 8.

⁴ Secondary includes schools that provide for students from year 7 to 13; and for year 9 - 13 (the latter being the most common).

⁵ Composite schools cater for students from year 1 (new entrant) to 13 (senior secondary)

(usually Year 8) and generally students then move to a Year 9 to 13 secondary school. Students attending contributing schools (Year 1 to Year 6) normally progress to an intermediate school (Years 7 and 8) before going on to a secondary school, although in some areas they have a choice of attending a Year 7 to Year 13 school.

State composite schools, of which there were 59 in 1997, cater for children from Year 1 through to Year 13. These are generally in rural localities (where they are known as area schools), although a number of new composite schools have been formed in urban areas in recent years, catering for a specified range of primary and secondary classes.

Schooling options

State schools

At 1 July 1997 there were 320 state secondary schools and 2235 state primary schools. Two notable features of the New Zealand school systems are the relatively large number of schools per capita and the high number of schools in rural localities. Half of all state primary schools have rolls of fewer than 144 students; one-quarter have fewer than 57 students. The largest primary school in 1997 had a roll size of 762. Intermediate schools are generally larger, with a median of 397. Secondary schools tend to have even larger rolls; the median-sized secondary school during 1997 had a roll of 598 and the largest had 2123 students. Area schools had a roll range from 61 to 1010 students with a median size of 218.

There are two specialised forms of state schools:

1. The Correspondence School provides primary and secondary education for students unable to attend a conventional school. These may be students who live in isolated areas or in institutions, students who have been suspended from school, or who are adult. They may be New Zealand students living overseas or whose families reside in more than one place, students who cannot attend school because of a medical condition, or students suffering from school phobia or other psychological problems. Primary school students may enrol on accelerated programmes. Secondary school students may also enrol with the Correspondence School in specific subjects if these are not available at the school where they are enrolled.
2. Kura Kaupapa Maori (state schools in which Maori language - te reo Maori - culture and values predominate) provide education in which the principal language of instruction is Maori. These schools are a key part of the strategy to assist in revitalising te reo Maori and improving the participation and achievement levels of Maori in schooling. Kura kaupapa Maori value and appreciate all languages. Kura believe that their children should be fluent in and master both Maori and English and are guided by an overarching philosophy which helps reinforce the special character kura kaupapa Maori represents. Kura kaupapa Maori are able to be established through the redesignation of an existing state school or through the establishment of a new state school.

Integrated Schools

Integrated schools are schools which were registered private schools (usually with a religious or philosophical character) but which have voluntarily integrated into the state education system through the Private Schools Conditional Integration Act 1975. This Act is specifically designed to preserve the 'education with a special character' that is offered by each school. After integration, the proprietors of the school retain ownership of the land and buildings and responsibility for capital works. The State assumes responsibility for all recurrent costs, including salaries, operations and

property maintenance. Any legislative provisions which apply to state schools also apply to integrated schools. In 1997 there were 303 integrated schools operating in New Zealand, representing nearly 11 percent of all New Zealand schools. The majority (78 percent) are Roman Catholic schools.

Private Schools

The Education Act 1989 makes provision for the registration and inspection of private schools. Private schools are not bound by any of the requirements contained within the Education Act 1989 relating to state school curriculum, management or administration structures.

During 1997, private schools received a per pupil state subsidy equivalent to 22 percent of the average state school cost for students in primary schools and 25 percent of the average state school cost for students in secondary schools. Through the Targeted Individual Entitlement Scheme (TIE) the Government funded 308 places in private schools in 1997 for children from low income families. In 1997 there were 120 private schools were operating in New Zealand, which represents just over 4 percent of all New Zealand schools.

Home Schooling

Parents may choose to educate their children at home rather than in a state or private school. To do so, parents must obtain from the Ministry of Education an exemption from enrolment in a registered school. The Ministry will grant an exemption if it is satisfied that the parents will teach their children at least as regularly and as well as in a registered school.

The number of children receiving home schooling has increased substantially over the past seven years from 1479 students as 1 July 1990 to 5351 at 1 July 1997. This number, however, still accounts for only 0.75 percent of total school enrolments.

Section B: Curriculum policies

During the last decade various efforts have been made in each country to revamp their education systems to bring them into line with social, economic, political and cultural change in the country. These educational changes are reflected in national educational policies and the curricula framework. The main purpose of this section of the questionnaire is to obtain information on this dimension and on the process of curriculum development and change in your country.

B-1. Background

- B-1.1 *In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.*

New Zealand curriculum policy for schools is described in the *New Zealand Curriculum Framework*, the *National Education Guidelines* and in the national curriculum statements. School programmes are required to meet the specifications of the *National Education Guidelines* and curriculum statements and in doing so reflect:

- a. the social context of the country: the school curriculum is required to provide equality of educational opportunity for all New Zealanders. Students are required to attend

school from age 6 at to 16 and the school curriculum must recognise, respect, and respond to the educational needs, expertise, interest and values of all students.

- b. cultural context of the country: the school curriculum must respect the diverse ethnic and cultural heritage of the New Zealand people, with acknowledgment of the unique place of Maori, New Zealand's role in the Pacific, and as a member of the international community of nations.
- c. economic/political context of the country: the school curriculum is expected to develop the knowledge and skills needed by New Zealanders to compete successfully in the modern, ever-changing world. An example would be the introduction of technology as an 'essential learning area' for all students (years 1-10).

B-1.2 *Give a brief overview of the educational goals/aims for the compulsory education sector in your country.*

The educational goals for New Zealand are to achieve the aims described in B-1.1 while providing a broad education through a balanced curriculum including the areas of mathematics, technology, language and languages (includes English), social sciences, the arts, science, and health and physical well being. It is expected that each of these essential learning areas will encompass the development of essential skills which include communication skills; numeracy skills; information skills, problem-solving skills; self-management and competitive skills; social and co-operative skills; physical skills and work and study skills.

Schools are expected to implement a balanced curriculum through planning and implementing programmes that are based on the national curriculum statements for each of the above areas. It is also expected that students' progress is monitored in relation to the achievement objectives in these curriculum statements.

B1-3 *What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.*

The *National Education Guidelines*, which all schools are required to meet, are statements of intent and do not prescribe how schools should achieve them. The regulations specify that schools (up to year 10) must provide programmes in all the curriculum areas which enable them to meet the objectives of each of the curricula; they must monitor student achievement against these objectives; and students must be supported in a way that maximises their opportunity to realise their full potential. The regulations do not specify how schools might achieve these outcomes; nor do they prescribe the actual nature of the courses/programmes, the time allocation for each subject, teaching-learning activities, textbooks, the methods of school based assessment, methods of recording achievement, or teacher education requirements.

B-2. Curriculum change

B-2.1 *Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.*

Prior to 1989 the school curriculum in New Zealand was guided by syllabus statements in a variety of subject areas and for different levels of schooling (that is, there were syllabi for primary schools; for secondary; for senior secondary; and some that were for a combination of school levels). These syllabi defined the content to be taught and learnt and gave guidelines on teaching methods. The major change to the curriculum in recent years has been the establishment of a New Zealand curriculum that comprises a set of national curriculum statements (in mathematics, science, social studies, the arts, technology, English, and health and physical education) which define the learning principles and achievement aims and objectives which all New Zealand schools are required to follow from years 1 to 10. (Note: the curriculum statements cover years 1-13 but are mandatory for all students in state schools years 1-10 once they have been gazetted.)

To date the curriculum statements in Science, Mathematics and English have been gazetted. Also, in the sciences, national curriculum statements have been written for years 10-13 in biology, chemistry and physics. National curriculum statements for each of the essential learning areas are also being published in te reo Maori (the Maori language); these have already been published in the areas of science, mathematics, and Maori language. For schools offering languages such as Chinese, Spanish, Samoan, and Japanese there are also nationally developed curriculum statements (a statement for Korean is also under development). All these national statements describe the knowledge, skills and attitudes that students are expected to develop in the respective subject areas at the various stages of their schooling. That is, what is to be learnt is now described in terms of outcomes at eight levels of achievement; the levels being independent of age or class level.

Associated with this change to curriculum has been the implementation of a national monitoring project that measures student performance in the various curriculum areas, through a sampling of students in years 4 and years 8. The National Education Monitoring Project, however, is attempting to benchmark standards over time and so has taken a more global perspective in the selection of the knowledge, skills and attitudes to be measured. As such it has not linked closely to the New Zealand Curriculum and essential learning areas. This is currently the source of some debate as valid and reliable data is sought on the actual impact of the new national curriculum statements on students' learning. In addition, the Ministry of Education has funded the development of 'assessment resource banks' in the subject areas of mathematics, science and English. These are test items that schools can use to monitor student achievement against data from trial schools. At the present time the Government has also proposed national testing of all students in years 6 and 8 in the areas of numeracy and literacy. A definite decision has not yet been taken.

There were a number of significant reasons for the recent changes to the national school curriculum. Firstly, it was intended to provide a more coherent framework for learning and assessment in New Zealand schools. Through the specification of what students were expected to learn (in general, rather than in specific terms) at the various levels of their schooling and the associated assessment of this learning, it was thought that

resources to support learning could be more wisely targeted in areas of identified need. Secondly, the Government wanted a school curriculum that had a greater focus on preparing students for a rapidly changing, technological world. It thought students needed to be adaptable, have an international and multicultural perspective, and have well developed skills (such as skills in communication, numeracy, information, problem-solving). Thirdly, there was a perceived need to place new emphasis on learning areas that are important to the country's health and growth: areas such as technology, second language learning (with a particular focus on Maori language and culture), and studies of New Zealand and those regions important to New Zealand such as Asia and the Pacific.

- B-2.2 *What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for curriculum documents in the next five to ten years, such as: globalisation; information technology; communication; and national/cultural identity?*

The present curriculum reforms that began in 1989⁶ will be completed in 2002. There will then be a review of the curriculum statements but it is difficult to predict the direction any changes might take. There is certainly a concern about the breadth of the current curriculum and schools are finding it very demanding to implement programmes that enable students to achieve all the specified objectives. Another area of contention is the degree of specificity of the curriculum objectives. At present the objectives in most areas (mathematics is an exception) are quite general, enabling teachers to develop school programmes that take account of the interests and needs of their students. However, this means that the content that students have the opportunity to learn varies between schools, and so it is difficult to benchmark levels of achievement at particular ages and curriculum levels.

The probable focus for on-going curriculum development in the next few years will be the completion of the remaining two curriculum statements (in Health and Physical Education, and in the Arts); continuation of initiatives to support information technology in schools (an IT strategy for education will be announced later this year); encouragement for the up take of second language learning, particularly in years 7-10; and a review and possible redefining of what might constitute the mandatory school curriculum. The other possible area for change is a greater emphasis on basic literacy and numeracy in the early primary years.

B-3 Curriculum development processes

- B-3.1 *Is your country's system of curriculum development centralised, partially centralised or decentralised? Please explain your answer.*

The development of the national curriculum as expressed in the national curriculum statements is centralised. That is, the Ministry of Education (who provide policy advice to the Government of the day) decides the specifications for the curriculum and

⁶ While the reforms began in 1989 the *New Zealand Curriculum Framework* was not published until 1993 and the first curriculum statement (mathematics) was released in 1992.

contracts out the actual writing to the preferred bidder (the actual writing teams consist of leading educators in the particular area). The development process involves a number of draft documents and extensive consultation from interested groups throughout the country. The draft and final document must be approved by the Minister of Education before it can be published.

The actual school curriculum consists of the ways in which a school puts into practice the policy set out in the national curriculum statements. In this way, there is an element of decentralisation in the development process as schools and teachers develop programmes that reflect local needs, priorities and resources.

- B-3.2 *Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-governmental agencies, private companies, etc).*

Curriculum development is initiated by the Minister of Education and the associated ministry; that is by central government. In the development process, current national and international research is used to inform the process and the consultative process includes input from all those interested - such as teacher associations, parents, non-governmental agencies, tertiary institutions, business groups, private companies etc.

- B-3.3 *In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc) accommodated in the decision making processes? Please give some recent specific examples.*

At the national level, during the development of curriculum, the Ministry seeks the views of the community through meetings throughout the country and also through requesting submissions on a draft document. For example, since the draft Health and Physical Education curriculum document was released in February 1998 there have been three methods used to gather feedback from interested people:

1. The Ministry of Education employed facilitators, who were based in every region of New Zealand, and they held consultative meetings and assisted schools to trial the draft;
2. The draft is available free and submissions are requested on an open-ended survey form which accompanied the document;
3. Ministry of Education researchers carried out a detailed survey of a random sample of schools to determine the views of teachers about the draft curriculum.

At the local level schools develop their programmes through consultation with their community. The extent of consultation, however, varies considerably.

- B-3.4 *In what ways does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.*

The national curriculum policy aims to promote unity though a strong focus on the promotion of equal opportunities for all students through programmes that are gender-inclusive, non-racist, and non-discriminatory. Unity is also emphasised through the

requirement that students develop the values needed to become full members of New Zealand society. At the same time, curriculum policy demands that the expertise, cultural traditions, histories, and languages of all New Zealanders are recognised and valued.

At the local level cultural diversity is enabled through the opportunity schools have to develop their programmes, in consultation with the local community, to reflect the ideas and values of that community.

- B-3.5 *Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.*

One of the *National Education Goals* (one component of the *National Curriculum Guidelines*) is 'success in their learning for those with special needs by ensuring that they are identified and receive appropriate support'. In practice this means that schools must demonstrate that their programmes are designed to meet the educational needs and interest of all their students. The majority of students who have been identified as having special needs receive education in a regular class setting. The Government does provide some support to schools for students who have special needs in the form of additional grants, special education teachers and some hours of assistance provided by teacher aides. Less than one percent of New Zealand school students are educated in segregated special classes.

SECTION C Curriculum Design

Every country has to make decisions regarding the overall approach to curriculum design as well as to the subject areas that will be included in the school curriculum. This section aims to describe the school curriculum in each country.

C-1 Curriculum organisation

- C-1.1 *Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.*

The current national curriculum is outcomes based. Each of the national curriculum statements identify 'achievement objectives' that are expressed as outcomes that students are expected to achieve from year 1 to year 13. The achievement objectives are described in eight levels which roughly equates to one level for each two years of schooling up to year 10; then one level for each year from year 11-13. The learning outcomes in each curriculum area cover the key knowledge, skills and attitudes that New Zealand students are expected to learn at each stage of their school education.

- C-1.2 *Please describe whether your curriculum is mainly designed to:*

- *be implemented by teachers as written OR;*

- *be interpreted by teachers and implemented with variations OR;*
- *give teachers total freedom to create the curriculum OR;*
- *some combination of the above.*

Please give examples to illustrate your answer.

The curriculum is designed to be interpreted by teachers and implemented with variations. Teachers are expected to select contexts - and in many cases content - that reflects the interests and needs to their students and the community in which they live. The skills to be developed within each curriculum area are more prescriptive. For example, in science at level three (approximately year 5 and 6) students are required to 'investigate special features of common animals and plants and describe how these help them to stay alive'. The science curriculum does place an emphasis on learning about New Zealand plants and animals but the actual plants and animals to be studied are up to the teacher and students. The skills of investigation, however, need to be those specified as 'scientific skills' and these are described in the curriculum. Similarly, at the same level, a teacher may choose water or eggs or some other material as the context for 'investigating how familiar materials change when heated or cooled'. These choices do influence the knowledge that students might acquire but the basic scientific concepts to be learnt are the same.

C-1-3 Basic structure of current and/or future school curriculum

Please give the range of subjects offered in your country in years 1-9/grades 1 to 9, giving specific information on the following matters:

- *indicate what subjects are compulsory or optional;*
- *indicate the time allocation for each subject (in hours per year). Note - if your country does not have a pre-set time allocation either estimate or state 'not available';*
- *how many hours a week are allocated to co-curricula (or extra curricula) activities? Are these compulsory or elective?*

	Subject	Grade/Year								
		1	2	3	4	5	6	7	8	9
	Mathematics-----	compulsory in years 1 to 10 -----								
	English-----	compulsory in years 1 to 10 -----								
	Science-----	compulsory in years 1 to 10 -----								
	Technology-----	compulsory in years 1 to 10 from 1999--								
	Social Studies-----	compulsory in years 1 to 10 -----								
	The Arts-----	compulsory in years 1 to 10 -----								
	Health and ----- Physical Education-----	compulsory in years 1 to 10 -----								
	Languages - the actual--l language(s) offered is -- a decision made -- by the school---	Languages are optional in years 1 to 10 - the --- actual language(s) offered is a decision made - the school--								
Co-curricula	Co-curriculum activities are-- optional and schools offer-- a variety of sporting and-- cultural activities for students--. These co-curriculum activities-- - are held out of school time-- (after school or on Saturdays).-- Many schools require teachers - to be involved in at least -- one co-curricula activity.--									
	Total									

Note - Currently students in years 1-10 would be exposed to all the subjects listed above (with the possible exception of technology); from 2002 the subjects listed above will be mandatory.

Time allocation for each subject is not prescribed. Schools are required to offer courses that include all the compulsory curriculum areas in a way that provides a broad and balanced programme for the students.

C-1-4 Integration

When the NIER survey on curriculum was undertaken ten years ago, curriculum integration was identified as a key issue and concern. In that earlier survey integration was viewed as a continuum. At one end of the continuum was combining the knowledge of several subjects with similar features into one subject area while at the other end was an interdisciplinary approach to integration through the organisation of the content and teaching-learning process around themes.

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

At a national level curriculum integration was not a significant issue in the development of the new national curriculum. While there are separate curriculum documents in each of the essential learning areas, programmes can be planned and implemented in a way that integrates curriculum areas. In practice, integration is more common in the primary school where cross curricula topics can be studied through a number of curriculum areas. The curriculum areas of social studies, science, and sometimes technology, are linked through topics such as waste disposal; tree planting; and caring for animals. In the senior secondary school some schools offer subjects in the area of environmental science that integrate science and geography.

As the present curriculum reforms are completed teachers are finding it a challenge to implement all the specified objectives for each of the curriculum documents. A number of schools have carefully chosen topics for study that are effective contexts for integrating two or more curriculum areas and that enable them to implement the current curricula without overloading teachers and students. In 1997 the Ministry of Education undertook a Curriculum Integration Exploratory Study to identify the range of practices and procedures for curriculum integration within New Zealand school and classroom programmes. This is being followed in 1998 with a series of professional development programmes on curriculum integration and the publication of a supporting document that will assist schools who wish to introduce and develop integrated approaches to curriculum planning and provision.

C-1.5 Specific curriculum areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (eg as a separate subject area, as an integrated area, at what level of schooling they are taught, etc).

Values/international understanding

At present aspects of these areas are integrated within other curriculum areas (such as health and social studies). There is renewed interest in the area of values education and policy is being developed to provide guidelines to schools so that they are able to make values education more explicit within the total school programme.

Education for the world of work

One theme in each of the curriculum documents is the use of real world, authentic

contexts for learning. In this way, it is hoped that students develop an understanding of the relevance of the knowledge and skills that they are learning and the ability to see the use of this expertise in the world of work. In the secondary school there is funding (Secondary Tertiary Alignment Resource - STAR) that enables schools to offer non conventional (and vocationally related) subjects such as Hospitality and Catering, Employment Skills, Agriculture/Horticulture, and Computer Studies.

Foreign languages

The learning of foreign languages is optional. There is a growing trend for primary schools (years 1 to 8) to offer the choice of learning languages other than English and te reo Maori. Japanese is the most popular of these languages, followed by French, German, Spanish and Pacific Island languages.

Computer/information technology

Information technology is one of the seven technological areas within the technology curriculum. At present in the primary school (years 1-8) information technology tends to be used rather than specifically taught. In years 9 and 10 schools provide either compulsory or optional courses in IT and in the senior school there are a number of computer studies courses that students can take - some of these are vocationally orientated and can be used as part of the national certificate qualification. The Government is currently developing a national strategy for IT that will provide support to schools in the development of effective IT programmes within all curriculum areas: that will provide professional development for teachers in IT; and give some technical support to schools in this area.

Health education

Health education has been a compulsory component of the school curriculum since 1985. It is one component of the essential learning area *Health and Physical Well Being* and once the final curriculum statement is released in 1999 it will become compulsory from years 1 to 10.

Environmental education

The Government has recently released an Environmental Education strategy and this includes the publication of environmental education guidelines for schools. These guidelines will not be mandatory but will demonstrate how the objectives of the various curriculum statements (particularly social studies, science and technology) can be implemented through environmental contexts. At the same time the guidelines will promote the need for students to learn more about the environment and for everyone to take an active role in the protection and enhancement of it.

C-1.6 Curriculum coverage

In designing the curriculum, countries need to make decisions about the breadth and depth of subject content and approaches. Some countries believe that the general education provided in their school system requires students to cover too many subject areas. There are pressures, also, to add new subject areas such as environmental studies; international understanding; information technology etc. Other countries are concerned about the number of subjects that students are required to study either because of the pressure this puts on students or because it means that subjects are approached in a way that does not lead to a depth of understanding or to the fostering of creative and critical thinking. There is also concern that overcrowding of the curriculum is being caused by the fact that schools are being asked to take responsibility for a wide range of social issues that were once viewed as the responsibility of families or the community as a whole (for example, appropriate behaviour, personal etiquette, etc).

C-1.6.1 *What are the issues in your country with regard to pressure on the coverage of the curriculum?*

The main issue associated with curriculum coverage is that of depth versus breadth. The curriculum documents were written sequentially and as a result each area specified what was to be learnt independently of the requirements from other curriculum areas. As a result teachers (particularly primary) are now finding it very difficult to plan and implement classroom programmes that give their students the opportunity to achieve all the objectives specified for the particular level(s) of their students. In addition, as teachers attempt to meet all the curriculum specifications, there are claims of a focus on breadth rather than achieving a depth of understanding (the latter being highlighted by the results of the National Education Monitoring Project - see E4.1 - and the Third International Mathematics and Science Survey - TIMSS).

C-1.6.2 *What steps, if any, are being taken to address these concerns?*

The current Minister of Education is prepared to address the perceived over crowding of the curriculum. The Ministry of Education is currently debating the notion of a compulsory national curriculum and what aspects within it might need to be prescribed.

Section D: Curriculum Implementation

Unless there are effective strategies for the implementation of curriculum policies, an education system does not derive the full benefits that should accrue from the school curriculum. This section of the questionnaire seeks responses to key aspects which are crucial for curriculum implementation: teacher development; resource provision; classroom strategies and student assessment.

D-1 Teacher Professional Development

A good curriculum will simply remain a curriculum on paper if it is not implemented properly. The teacher and the instructional leaders in the school are the key to the implementation of that curriculum. The questions below seek to find out how teachers in your country are prepared professionally for teaching, and the programmes available for their continuous professional development.

D-1.1 Pre-service teacher development

D-1.1.1 *Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?*

Teachers in New Zealand need to be registered and this requires a teaching qualification (exceptions are made in areas of shortage and teachers appointed to such positions are given limited authority to teach for a specified time period).

D1.1.2 *Is there a prescribed national curriculum/guidelines/framework for pre-service teacher education in your country?*

There is no national curriculum for pre-service teacher education in New Zealand. In practice teacher education programmes throughout the country take a very similar approach to programme design. In 1998 the Ministry of Education published professional standards for beginning teachers in the primary (elementary) sector and these will service as guidelines for pre-service programmes.

D-1.1.3 *What is your country's programme for pre-service teacher development?*

	Qualification	Institution	Entry requirement
Primary ⁷	BEd (teaching) (3 years)	University, Polytechnic, College of Education	University entrance or equivalent
	BEd (4 years)		
	Diploma of Teaching (2 years)	Polytechnics, College of Education	Partial tertiary qualification and relevant work experience
	Diploma of Teaching (1 year)	University, Polytechnic, College of Education	A degree
Secondary	Diploma of Teaching (1 year)	University, Polytechnic, College of Education	A degree with relevant teaching subjects

⁷ A number of institutions offer degree programmes for Early Childhood Education; some of these programmes share components with the BEd (primary).

- D-1.1.4 *Pre-service teacher education programmes usually include components of education foundations (eg sociology of education, history of education); general methods courses (eg educational technology, classroom management, assessment); subject content courses; specific methods courses (eg mathematics education, science education); and teaching practicum. Please describe the general components of the pre-service teacher education programme in your country.*

Teacher education programmes in New Zealand include three major themes: professional education; curriculum studies; and professional practice. In some programmes these are implemented as separate components, in others the areas are integrated.

Professional education

Includes courses which develop theoretical understandings related to teaching and learning. There tends to be a strong focus on developing professional knowledge derived from current educational research, particularly research which informs students of the New Zealand educational context.

Curriculum studies

These course are centred around the National Curriculum. Students who are being educated as secondary teachers usually specialise in two curriculum (subject) areas. The programme for primary student teachers includes English, mathematics, science, technology, social studies, the arts, health and well being, and aspects of tikanga and te reo Maori (the Maori culture and language).

Professional practice

The professional practice courses assist student teachers to examine the role of the teacher, to develop generic teaching skills, to learn communication skills, to manage pupil behaviour, and to integrate this knowledge with that developed in Professional Education and Curriculum Studies. A significant part of this aspect of teacher education programmes takes place in schools where student teachers work in a classroom for a block of time (usually between 3-6 weeks). Most student teachers would spend 8-10 weeks in school each year (significantly more for those completing one year programmes, where it is more likely to be 12-16 weeks).

- D-1.1.5 *Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education? Please give specific examples to illustrate your answer.*

An institution that provides teacher education must gain approval to offer the particular programme. The universities have their own system for programme approval (Committee on University Academic Programmes - CUAP). Other institutions offering teacher education are approved by the New Zealand Qualifications Authority or its delegate. The approval process involves a panel of experts in the field scrutinising areas such as the programme design, course outlines, staff qualifications, professional development opportunities and resources. Approval to offer a programme is only given if the panel is confident that the institution has the expertise and resources to implement the programme to an acceptable standard. Each programme needs to seek re-approval every 3-5 years, ensuring that the programmes offered are kept up-to-date

with curriculum developments and associated initiatives in education.

D-1.2 In-service teacher development programmes

D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?

In-service professional development, as organised within each school, (as part of the school programme) is compulsory for the teachers. Ten days of non school time (that is, when students are not present but the school is open) can be directed to this purpose for primary teachers.

However, at present any other in-service professional development for teachers is voluntary. The Government is introducing Professional Standards for teachers as part of the performance management systems already operating in schools. One dimension of these standards relates to keeping up to date with professional knowledge. This requirement may act as a further incentive for teachers to take part in on-going professional development.

D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?

The Government funds some professional development for teachers. Individual school boards also allocate funds (from schools' operational bulk grants) to support teachers in this area. The Ministry of Education funds teacher development programmes to support the implementation of new curriculum. For example, the draft of the Health and Physical Education curriculum was published in early 1998 and teacher development programmes will be offered throughout the country when the final document is released in 1999 to ensure teachers have an understanding of this area. There are also funds allocated for the provision of an advisory service that works throughout the country to support teachers in developing their practice. The advisory services offer a range of services to schools including school based development in negotiated areas (such as self management; curriculum; Maori); and short courses in areas of need (such as information technology; teaching strategies to improve learning; technology education). The Government has stated its intention to make the professional development of teachers contestable and to allocate most of the professional development funds directly to the schools so that they make the decisions on the development that they (and their teachers) require⁸.

There are a few other opportunities for teachers to participate in professional development where the Government provides some support. Each year the Teacher Refresher Course Committee (TRCC) is funded to deliver a range of courses for practising teachers. These courses are held in the term breaks and focus on areas that teachers within a particular subject area and other educational professionals have identified as being significant (examples are practical work in science; visual language in English; information technology). Teachers can apply to attend these courses and

⁸ It will be contestable in that schools will be allocated the funds and they will need to select the professional development from a range of individuals/institutions/private companies who will be in the market for these services.

travel costs are paid by the Government (in 1997 250 primary and 250 secondary teachers attended such courses). In the secondary sector, 70 study awards are given each year to enable teachers to improve their qualifications and develop their knowledge in their areas of expertise. Similarly, fellowships in science and technology are available to all teachers and about 25 are awarded annually. These fellowships enable teachers to work alongside scientists and technologists to develop their understanding of the particular field of work and so to enhance their ability to provide classroom programmes that are relevant and contemporary.

- D-1.2.3 *Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?*

The opportunities for professional development of teachers are numerous and it is up to individual teachers to seek these. Tertiary institutions offer a variety of courses for qualifications that are sought by teachers. Short courses that cover all curriculum areas and associated areas of teaching and learning are held in non-teaching time (some of these a subsidised by the Ministry of Education). Teacher associations exist in all subject areas and they too offer support to teachers through meetings, conferences, the publication of newsletters, journals and resources.

- D-1.2.4 *Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the monitoring factors and incentives for participating in in-service training?*

The motivating factors and incentives for participating in in-service programmes vary. The Government has paid for teacher release time for curriculum related courses and this has provided schools with a strong incentive to participate. Other influencing factors in the past have been the desire to improve qualifications (particularly in the primary sector where advanced studies for teachers courses led to an increase in salary); and to keep up to date in the area(s) of expertise (and so improved promotion chances). The present focus on professional standards for teachers (for beginning teachers; fully registered teachers; and experienced teachers) may provide a more explicit focus for participating since it requires teachers to have evidence that they have 'demonstrated a commitment to their own on-going learning'.

- D-1.2.5 *A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/voluntary in-service training provided; or teacher guides to the curriculum published etc.*

The Ministry of Education allocates funds for professional development associated with the publication of any new curriculum or associated initiative (such as information technology). Most programmes are school based (on-site) and involve all the teachers (at least in a primary/elementary school) and are long term (that is more than a one-off one day course and are usually one year in length). For programmes that are not school based at least one teacher in every school (and usually more than one) would have the opportunity to participate in courses designed to support curriculum

implementation. The curriculum documents have also been supported by the publication of a range of curriculum materials designed to assist teachers in implementing programmes based on the particular curriculum.

D-2 Resource support

Countries are using a diverse range of materials to support the implementation of new curricula. Material support of various kinds may assist in the provision of information for students, provide a guide to teachers and assist teachers in implementing effective classroom programmes that actively involve the students in learning. This material support may take various forms such as: textbooks, videos, computer software, calculators, equipment and apparatus, multimedia, teacher guides and CD ROMS. The following questions are designed to find out the kinds of support materials countries are currently using to assist teachers implement curriculum change.

D-2.1 *Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:*

- (1) Government directly sponsoring the writing, production, and distribution of text books*
- (2) Government approving a particular selection of textbooks*
- (3) The choice of textbooks entirely made by schools and/or teachers*
- (4) Other methods - please specify.*

Please indicate which of the above apply to your country.

The Government is involved in text book production in a limited way. Learning Media, a Crown owed company, publishes a range of resources that are provided free to schools. The resources provided are mainly aimed at primary aged students and include school journals, a 'Ready to Read' series of instructional readers, and a range of other publications. The actual use of the texts is not mandatory and how and when they are used is up to schools and/or teachers. A number of commercial publishers produce texts that can be used in schools and these are commonly purchased for use in secondary schools but very rarely in primary/elementary. Primary schools do, however, buy significant amounts of reading material from commercial publishers to supplement the Ready to Read material.

D-2.2 *What other teaching/learning support materials are available for schools (eg teacher guides, video tapes, computer software, CD ROMS etc)?*

There are a great variety of support materials available to support teachers in the planning and implementation of their classroom programmes. The Government provides primary schools (free of charge) regular publications (including reading materials such as school journals; booklets, videos, audiotapes) to support all curriculum areas. Some of these materials are resources for teachers (such as a guide to planning a mathematics programme; information to support the teaching of reading; etc) and others are for student use (such as journals and other reading material). There is also a developing market in the private sphere that is offering a diverse range of resources (based on the current curriculum) to support teaching and learning.

The selection of resources for purchase, and the actual use of both purchased and provided support material, is up to schools and teachers.

- D-2.3 *Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprises etc).*

The Government uses a contracting system to develop supplementary materials that assist in curriculum implementation. Proposals are sought in relation to a set of pre-determined resource specifications and a contract offered to the preferred bidder. In the development of any resource the contractor is required to consult widely and usually to trial material in schools. The major contractor involved in the development of supplementary materials is Learning Media, which is a government owed publishing company. The process used by private enterprise is entirely up to the organisation involved and it is the market that determines the 'success' of the product. Again it is common for teachers to be involved in the development process.

- D-2.4 *How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.*

Schools provide students with supplementary materials to support classroom programmes (such as books and journals). Textbooks are usually loaned to students and only paid for by students if lost. In the senior secondary school students are often required to buy supplementary materials (such as a laboratory manual; revision booklets; art materials etc).

D-3 Community support

- D-3.1 *In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO's, the religious community etc) supporting curriculum implementation? Please give specific examples.*

There is a variety of community support to assist in the implementation of curriculum. Schools are governed by a Board of Trustees whose members are mostly parents and community people (the school Principal is also a member of the Board). School boards of trustees are required to develop a charter and then be able to demonstrate its implementation. The charter includes *The National Educational Guidelines* (see B-1) and encompasses the requirements of the Education Act 1989. It may include local objectives developed in consultation with the school's community.

Parents and other people in the local community are also involved in supporting classroom programmes (for example in assisting with activities both inside and outside the classroom; acting as an 'expert' in a particular study; providing additional resources). There are a number of national firms that have schemes that assist schools and/or contribute to the classroom programmes. For example, Telecom has a scheme where people can nominate a school to receive funds which are calculated as a percentage of the telephone account and BP supports a national science and technology

challenge for primary age students. On a local basis there have been a number of initiatives to establish and maintain school-industry links so that students have the opportunity to see some of the applications of the ideas that they are learning about at school (for example, electricity companies have supported the production of resources that provide information on energy use, energy generation and energy conservation). School programmes are also supported by a number of government (outside education) and non government departments that have education as part of their brief. For example, the Ministry of Agriculture produces a variety of resources for schools; many regional councils have education programmes associated with resource management; the Ministry of Health promotes schools initiatives in the areas of skin care and cancer prevention. In addition, the Crown Research Institutes are required to make some commitment through their charter to education and so contribute to science, mathematics and technology education.

D-4 Classroom strategies

So far the questionnaire has been concerned about the implementation of the planned curriculum. However, the teaching methods employed also have a critical influence on curriculum implementation.

D-4.1 *What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?*

The curriculum statements highlight key ideas associated with the successful teaching and learning of the particular curriculum area. In the same way, the teacher development courses that are offered to support the implementation of each new curriculum document have components that focus on the effective teaching of the associated curriculum areas. For example, the science curriculum places an emphasis on the science being set within relevant and contemporary contexts; on students being active in their learning; and on the development of investigative skills. All these aspects are modelled in the associated teacher development courses and in resources published to support the curriculum implementation.⁹

D-4.2 *What are the major issues and concerns about teaching methods in your country?*

The major issue is not so much about the teaching methods being advocated but the consequences of using such methods. The curriculum reforms have placed considerable focus on students thinking and doing, and in areas such as science and technology the development of knowledge within a context of practical investigation. To achieve understanding takes time and as a consequence it is more difficult to cover the breadth of each curriculum area. It also means that students may have considerable knowledge in one area but not a great deal in another because the focus has been on developing skills in whatever context (or content area) that schools and teachers thought was most appropriate for their students.

⁹ The release of each of the curriculum statements has been accompanied by teacher development programmes that have been largely funded by the Ministry of Education.

The New Zealand curriculum has been described in general, rather than specific terms, so that teachers are left with the opportunity to design and implement classroom programmes that were appropriate for the needs and interest of their students. This means that there is no common core knowledge actually specified and being taught and learnt (particularly in years 1-8). There is growing concern about the lack of national consistency in the implemented curriculum and the implications of this when attempting to assess standards of achievement. There is increasing debate about the need for the content to be covered in each curriculum to be more clearly specified.

With respect to teaching methods there is ongoing debate on the teaching of reading and the notion of the whole language approach versus phonics. Similarly, educators (again particularly in the primary sector) are considering the contentious issue evident in Britain at the moment; that of group work versus whole class teaching. While most teachers would advocate a balance of both it does need to be aired as an issue so that decisions are made on the basis of evidence rather than prejudice.

D-5 School-based assessment

A key issue for the effective implementation of the curriculum involves students and their learning at the school level. Countries use a variety of strategies to assess student learning. School based assessment provides feedback to teachers with respect to the effectiveness of their teaching, and provides students and parents with essential information about student progress.

- D-5.1 *Data is collected to assess students' performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc), and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (eg any current change in practice in line with changing focus on the curriculum).*

Classroom assessment data is collected on the performance of each student in a variety of ways including paper-pencil tests, through the assessment of processes (such as practical work in science and technology), self and peer assessment, using portfolios and by direct observation in relation to specific criteria. In the primary sector standardised Progressive Achievement Tests - in the areas of mathematics, reading and study skills - are administered and used to chart students' progress (these tests are not mandatory but many schools do choose to use them). There is also a 'Six Year Net' which is administered to all students after about one year at school. This assesses the student's reading ability and is used to determine whether the student needs additional support in the form of a programme called reading recovery.

The major area of development associated with the current curriculum reforms has been the focus on standards based assessment (as compared with the more conventional norm referenced approach) and the associated clear linkage between the expected learning and the nature of the assessment. The other area of development in assessment with the new curriculum initiatives has been the increased use of formative assessment as a tool to focus teaching and the planning of subsequent lessons.

In the primary sector the main issue with respect to assessment that initially emerged through the current curriculum change was a focus on the assessment of a broader range of knowledge and skills through all curriculum areas. Emerging from this was the issue of manageability for teachers and a growing concern that the implemented curriculum is too broad and so does not provide the depth of learning required in each of the essential areas.

In the secondary sector the move to use assessment appropriate for the particular outcomes has led to workload issues for teachers. The acceptance that examinations can only validly assess some of the curriculum outcomes has led to an increase in the school based assessment component in the senior secondary school (this now ranges from 20% in some courses to 100% in others). Associated with this have been concerns about reliability; in particular about consistency between schools. A variety of moderation systems have been established - again causing debates about workload and consistency. At present, the area of school based qualifications and the associated assessment is under review and decisions are expected later in 1998.

- D-5.2 *There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?*

The main purposes for assessment at the school level in the primary and junior secondary levels are as a diagnosis for learning and for reporting to students and parents about progress in the respective subject areas. In the senior secondary school, many subjects have an internally assessed component for the particular qualification of the year, and so there is the additional purpose of assessment for qualification. Assessment for promotion is used only in the senior secondary school (that is in years 11, 12 and 13).

- D-5.3 *Performance can be reported as a percentage rating (eg 75%, 80%, etc), grade rating: (eg A, B, C, etc) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (eg any current change in practice in line with changing focus on the curriculum).*

In the school sector a mixture of standards based and norm referenced (using a percentage rating) is used. The Progressive Achievement Tests (PAT's) and 'Six Year Net' are norm referenced. However, standards based assessment - assessment of learning outcomes in relation to specified standards- is more commonly used in school based assessment. As described in D-5.1 the development of standards based assessment has taken place alongside the implementation of the new curriculum. It is seen as a more useful way of measuring students achievement in the knowledge, skills and attitudes learning outcomes derived from each of the curriculum statements.

- D-5.4 *Does your country have any external examination systems? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (eg how it might influence the aims/goals of the planned curriculum).*

New Zealand has national examinations in years 11 and 13. In each of the subject areas prescriptions for the examinations are written, based on the national curriculum. While any examination does influence the emphasis of the implemented curriculum, this is minimised by many subject areas having an internally assessed component. The internally assessed part enables students to demonstrate their achievements in areas that can not be effectively measured through written examinations (such as practical work, research skills).

D-6 Barriers and constraints to effective curriculum implementation

The effective implementation of curriculum is dependent on a multitude of factors. Countries report that difficulties/barriers that have been identified as constraints to effective curriculum implementation include: inadequate support instructional materials; large class sizes; language of instruction; out-of-date materials; teachers qualifications, teacher availability; teachers knowledge, skills and attitudes; and the performance of teachers and principals.

D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

Two significant areas that have emerged as constraints to effective curriculum implementation are the size and scope of the national curriculum and the ability of teachers to have, and keep up-to-date- with, the knowledge base required within each of the essential areas.

Size and scope of the national curriculum

As the current curricula were developed sequentially and independently of each other it has now been recognised that students are required to learn too much at each level. Teachers are beginning to implement programmes that integrate two or more curriculum areas but it is still a struggle to provide students with the opportunity to develop the knowledge and skill in all areas. Associated with this concern about the size and scope of the national curriculum is the workload demand that has been placed on classroom teachers as they attempt to plan, implement, assess and evaluate so many areas. In the junior primary area, there is the additional problem that the nature of a broad and balanced programme at this level requires a very different definition than in the rest of the school sector (specifically, that it must have a very strong focus on the development of literacy and numeracy). This is not recognised in the structure of the curriculum statements.

Teachers' subject knowledge

The Minister of Education established a Task Force in 1997 to provide advice on the types and level of support that classroom teachers need to make the curriculum reforms in mathematics and science work. The task force was convened because of reported difficulties of classroom teachers (especially primary) in implementing the new curricula for mathematics and science and in the light of the reported results for

the Third International Mathematics and Science Study. In addition, while there were professional development programmes associated with the release of each curriculum document, there are on-going concerns about

the ability of teachers to keep up-to-date
(for example in the area of information

with the development of knowledge
technology).

Section E: Curriculum Monitoring and Evaluation

The main purpose of this section of the questionnaire is to find out whether any programme of curriculum evaluation is in operation in your country and how curricula are revised. It needs to be noted that this section is devoted to overall curriculum evaluation and not to individual students evaluation which has been covered in Section D.

E-1 Monitoring and Evaluation

There are a number of ways in which the curriculum can be monitored and evaluated. For example, monitoring visits by supervisors/inspectors, consultative assemblies and curriculum conferences.

E-1.1 What processes are used to monitor curriculum implementation in your country?

The Education Review Office (ERO) regularly audits the performance of all schools against the requirements set out in the *National Education Guidelines* and the *National Administrative Guidelines*. Reports of individual schools (Accountability Reviews) evaluate the quality of education received by students through an analysis of the effectiveness of the planning, implementing, assessment and evaluation of the national curriculum. ERO also publish national reports (Education Evaluation Reports) that evaluate broad education programmes, policies, structure and other system-wide matters. In the curriculum area, ERO have published reports on the implementation of the science, mathematics, technology and English curricula. The National Education Monitoring Project (see E-4) also provides the Ministry of Education with information on student performance that can be used to inform the reviews of curriculum areas.

E-2 Curriculum Evaluation

Countries have a variety of strategies for curriculum evaluation such as: analysis of curriculum documents with respect to policy statements; validation conferences with relevant stakeholders; and pilot studies in a few school settings.

E-2.1 Please describe the mechanisms/major tools used in your country for curriculum evaluation?

The Education Review Office (see E-1.1) play a key role in providing evaluation information on the current curriculum and the effectiveness of its implementation. The Ministry of Education also contracts out research and some of this is also used to inform the on-going development of the curriculum (see E-5.1). Overall, however, there has not been a systematic plan for the evaluation of the curriculum initiatives of the past decade.

- E-2.2 *How are the results of the national curriculum evaluation used in your country for example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.*

The results of national curriculum evaluation are used in a variety of ways. The reports on the curriculum published by ERO and the results of the National Education Monitoring Project are used to inform on-going policy development. The information is also valuable to schools and teachers as it gives an indication of areas of strength and of concern nationally. In this way schools are given some direction as they decide their priorities for further school based curriculum development.

E-3 Monitoring of local curriculum

- E-3.1 *If a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?*

Schools are expected to plan and implement programmes that meet the specifications of the curriculum documents while also meeting the needs to the local community, students and parents. As part of the legislative requirements of schools, there must be an on-going programme of school self review. Also the Education Review Office, in their accountability reviews, monitor each school's delivery of a balanced curriculum in accordance with the national curriculum statements. In 1997, ERO found about two-thirds of schools which were reviewed provided a balanced curriculum for their students.

E-4 Student Assessment for Curriculum Monitoring

Some countries are using national student achievement studies to evaluate the effect of the curriculum. For example, national assessment programmes, local assessment programmes, the observation of classes, performance testing etc.

- E-4.1 *What types of assessment are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.*

The Government is using a variety of strategies to evaluate the impact of curriculum on student achievement:

The National Education Monitoring Project commenced in 1993 and assesses the achievement of students in year 4 (ages 8-9) and Year 8 (ages 12-13). A light sampling methodology is used and different essential learning areas and skills, including attitudes and values, are assessed each year, over two four-year cycles. Each year, assessments cover about one-quarter of the New Zealand curriculum. A report of performance in each subject area is published in the year following the assessment and key findings are used to inform further initiatives in curriculum support and development.

New Zealand is also involved in international studies such as the International Association for the Evaluation of Educational Achievement (IEA). Over the past decade New Zealand has taken part in a computers in education study (1989); a reading literacy study (1990); and the Third International Study of Mathematics and Science (TIMSS). The reading literacy results indicated that New Zealand students were in the top group of countries at both year 6 and year 10. The latest TIMSS results indicated that New Zealand students were achieving in science at an average level compared with the other countries surveyed; and slightly below average in mathematics. A repeat of TIMSS is planned for 1999 and this will give a valuable insight into the impact of the new curricula in mathematics and science on the achievement of New Zealand students (the survey released in 1997 was largely conducted before the publication of the current curriculum).

The national reports on curriculum areas, written by the Education Review Office, provide further data on student achievement within the national curriculum.

The Government has recently published a discussion document on national testing. It has expressed the intent to implement testing of all students in years 4 and 8 in the areas of numeracy and literacy.

Students in years 11 and 13 are involved in a national examination system (School Certificate at year 11 and Bursary at year 13). These examinations are based on prescriptions that are written from the respective curriculum statements. In this way, the assessment through these examinations provides evidence of student achievement at this level of schooling.

E-5 Research and Curriculum Development

E-5.1 *What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.*

The current curriculum reforms have taken place over a short time period and have not been accompanied by a systematic research programme. There are, however, a number of research projects that will inform the evaluation of the current national curriculum.

These include:

1. *Implementing the New Zealand Curriculum Framework and Associated Statements* (Renwick, M., & Gray, A. 1995)

The study was designed to look at the impact on primary schools of implementing the *New Zealand Curriculum Framework*. Through a series of in-depth case studies, data were provided on how schools have been integrating the requirements of the curriculum framework and curriculum statements and how they are planning for, and evaluating its implementation. It was found that key factors influencing school progress in implementing the curriculum were the availability of staff development; the leadership of the principal; teacher attitude to change; and the amount of time needed to bring about change. Assessment was identified as an issue for teachers; with uncertainty

about how much should be assessed and assessment methods being the focus of the concerns.

2. Evaluation of teacher development programmes

There have been research projects in specific areas such as the evaluation of teacher development programmes in mathematics and science in the New Zealand Curriculum (1994); and some that have evaluated professional development programmes in general (1995-1998). Key findings in the latter research suggest that personal learning and school change was enhanced by in-school visits by the facilitator of the programme; and programmes that involved the whole school were viewed as the most effective approach for bringing about change within a school.

3. National Monitoring Project see E.4

Key findings of each year's assessment are published and used to inform the evaluation of the current curriculum and its implementation. For example in 1995 the knowledge, skill and attitudes of students in year 4 and 8 were assessed in Science; Graphs, Tables and Maps; and Art. In 1996 the focus was on the areas of Music; Technology; and Language: Reading and Speaking. In 1997 Mathematics, Information Skills and Social Studies were assessed/

4. Assessment Resource Bank. The New Zealand Council for Educational Research (NZCER) has been contracted by the Ministry of Education to develop assessment resource banks in mathematics, science and English. This is a computerised database of assessment resources which reflect the current curriculum statements and that can be accessed by schools and teachers through the Internet. Teachers can select and print off assessment material to match their curriculum and teaching objectives. The trials of the resources in the item bank provide national data on how students are performing in relation to the curriculum achievement objectives.

5. Education Review Office (RE) reports on curriculum implementation (see E-1.1 and E-2.1)

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Philippines

Bella O. Mariñas

Section A: Background Information

The purpose of this section of the questionnaire is to collect general information about your country and its education system. Please provide the following information on your country, using 1998 figures or else those that are most recently available (please indicate year).

A-1. General information

A-1.1 Size of population

Total	Year (1997)
	Annual population Growth rate
68,614,162	2.32%

With one of the region's fastest rates of growth of 2.32%, the Philippines as of 1997 had a total population of 68,614,162 which is almost equally divided into males and females. The Philippines has a very young population as shown by the number of children and youth for the following age groups which is 49% of the total population.

A-1.2 Indicate the total number of children/youth in the following age groups, using the latest available data.

Age Group	Males	Females	Year (1995)
			Total
0-4 years	4,827,268	4,534,850	9,362,118
5-9 years	4,566,569	4,326,861	8,893,430
10-14 years	4,081,676	3,958,982	8,040,658
15-19 years	3,726,799	3,738,652	7,465,451
Total	17,202,312	16,559,345	33,761,657

As can be seen from the above Table on Population by Age Groups, there are more males than females in the Philippines for its populace younger than 20 years. The total population of 0-19 years old is 33,761,657 which is about half of the total country's population. The above table shows that the population of the Philippines is young. The data is taken from the 1995 national census which provides the latest count of the country.

A-1.3 Indicate the major ethnic and language groups in your country, as a percentage of total population.

Ethnic group	%
Tagalog	27.77
Cebuano	15.34

Language group	%
Tagalog	27.9
Cebuano	24.3

Ethnic group	%
Hiligaynon (Ilonggo)	14.43
Waray	12.48
Ilocano	10.87
Pampango	9.92
Bicolano	0.06
Others	9.13

Source: 1998 Annual Yearbook

Source: 1997 Facts and Figures, DECS 1995 Census

Language group	%
Ilocano	10.0
Hiligaynon	9.3
Bicol	5.8
Samar-Leyte	4.0
Foreign Language	0.3
Others	18.4

A-1.4 List the major religious groups in your country

The Philippines is predominantly Roman Catholic. The major religious groups in the country are:

Roman Catholic	-	82.0%
Islam	-	4.6%
Protestant	-	3.8%
Aglipayan Church	-	2.6%
Iglesia ni Kristo	-	2.3%
Others	-	3.7%

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$US).

The total annual public expenditure on education for calendar year 1997 is **EIGHTY-FOUR MILLION TWO HUNDRED SEVENTY-FOUR THOUSAND PESOS (P84,274,000.00)** or **TWO MILLION ONE HUNDRED SIX THOUSAND EIGHT HUNDRED FIFTYDOLLARS (1US\$ = P40.00)**. Education as percentage of the national budget is 17% and as a percentage of the gross national product (GNP), it is 3.7%.

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

The national language of the country is Filipino (Article XIV, Section 6 of Constitution). Section 7 of the same Article states *"For purposes of communication and instruction, the official languages of the Philippines are Filipino and, until otherwise provided by law, English."*

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language(s) are taught and at what levels?

The school curriculum implements the Bilingual Policy whereby English and Filipino are the media of instruction. In the secondary level, English, Science, Mathematics and Technology and Home Economics (THE) are taught in English and taught in Filipino are Social Studies, Values Education, Physical Education, Health and Music and Filipino for the secondary level.

In the elementary level, English, Mathematics, Science and Health are taught in English. Filipino, Civics and Culture, Good Manners and Right Conduct (GMRC)/Character Education, Edukasyong Pantahanan at Pangkabuhayan (Home Economics and Livelihood Education), and Musika, Sining at Edukasyong Pagpapalakas ng Katawan (Music, Arts and Physical Education) are taught in Filipino.

Filipino is the second language and is being taught as a subject in the schools. While it is true that a child learns best in the language he uses at home, the existence of so many dialects in the Philippines makes it difficult to be addressed in the curriculum. In such case, the use of English and Filipino in basic education is being followed.

A-2. The Educational System

A-2.1 Structure

Level	Duration In years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non- Compulsory
			Males	Females	Total	Males	Females	Total	
Pre-school	2-4 years	2-6	NA	NA	NA	NA	NA	NA	No
Elementary	6 years	7-12	4,801,227	4,553,224	9,354,451	92.97%	92.41%	92.70%	Yes
Secondary	4 years	13-16	1,964,379	1,976,208	3,940,587	61.63%	62.87%	62.25%	No

If possible, attach a diagram of the school educational system in your country.

The length of basic education in the Philippines is only ten (10) years that is six (6) years of free and compulsory education and four (4) years of free secondary education. The diagram of the education system is attached.

Preschool is not part of the educational ladder, but DECS, recognizing its need and importance issued a policy document in 1971 encouraging the school divisions to establish public preschool classes whenever possible. These public schools have provided early childhood education in addition to the existing private schools which have been offering early childhood education for several years. To date there are 4,319 Parent-Teacher-Association (PTA) organized classes and 6,073 private preschools.

The percentage of relevant age group attending school was determined by dividing the 1995 enrolment in the age group by the same age group from the census data of 1995. The participation rates for the elementary and secondary school levels are 92.7% and 62.25%, respectively.

A-2.2 Class size

Level	Average class size
Elementary/Primary	34
Secondary	32

The class size presented in the Table is the computed class size. However, the actual class sizes would range from 40 to as many as 70 students per class.

A-2.3 Teachers

Level	Number of Classroom Teachers			Teacher:Student ratio
	Males	Females	Total	
Elementary/Primary	NA	NA	334,822	1:35
Secondary	NA	NA	146,102	1:34

There is no available data on the number of teachers by gender. It is to be noted that a big majority of the teaching force in the Philippines is female.

A-2.4 Number of Schools

Level	Government	Private	Other - please specify	Total
Elementary/Primary	35,148	3,083		38,631
Secondary	3,992	2,681		6,673

In terms of the number of schools, the government schools in the elementary level is 92% of the total while in the secondary level, it is 60%.

A-2.5 Specific school information

	Primary	Secondary
Number of school days per year for students	206 days	206 days
Division of school year e.g. quarter, semester	Quarter	Quarter
Number of instruction days per week	5 days	5 days
Teachers' average number of class contact hours per week	30 hours	30 hours
Time duration per teaching period (in minutes)	40/60 mins.	40/60 mins.

In the past, the number of school days per school year was 185. With the passage of a law (Republic Act No. 7797) recently, the number of school days range from 200 to 210 per school year. For School Year 1998, there are 206 school days.

The division of the school year is such that there are four (4)-grading

periods of ten (10) weeks each in a school year. There is a one-week break between the second and third grading periods, a two-week break during the Christmas holidays and the long vacation during the months of April and May. The school year begins on the first Monday of June and ends on the last Friday of March. Classes are held five days a week, Mondays to Fridays.

Pursuant to the provisions of Republic act 4670 (Magna Carta for Public School Teachers), the minimum workload of teachers is six (6) hours per day. In the intermediate grades following 5-3 or 3-2 ratio of teachers to classes, the schedule is worked out so that no teacher is assigned more than 360 minutes of teaching. Officially, teachers are required to render eight (8) hours of work. The other two hours is spent for lesson planning, preparation of instructional materials, checking test papers and recording test results.

For secondary school teachers, the teaching load varies across subject areas. For double periods (Science and Technology and Home Economics), a teacher is given 3-4 teaching loads. For forty-minute periods, the teacher is given 6-8 loads.

A-3. Any other relevant background information

Please provide here any other background information that will assist in the interpretation of your country response.

Section B: Curriculum policies

During the last decade various efforts have been made in each country to revamp their education systems to bring them into line with social, economic, political and cultural change in the country. These educational changes are reflected in national educational policies and the curricula framework. The main purpose of this section of the questionnaire is to obtain information on this dimension and on the process of curriculum development and change in your country.

B-1. Background

- B-1.1** In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.

The social, economic, political and cultural contexts are provided by the Constitution of the land. These are translated into educational policies and further defined by the curriculum framework of the elementary and secondary levels of education. Section 3(2), Article XIV of the Constitution states that

...All educational institutions shall inculcate patriotism and nationalism, foster love of humanity, respect for human rights, appreciation of the role of national heroes in the historical development of the country, teach the rights and duties of citizenship, strengthen ethical and spiritual values, develop moral character and personal discipline, encourage critical and creative thinking, broaden scientific and technological knowledge and promote vocational efficiency.

- B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

The compulsory education sector in the Philippines is the elementary level of education. The aims of elementary education as enunciated in Section 21, Chapter 1 of Part III of the Education Act of 1982 are:

- To provide the knowledge and develop the skills, attitudes and values essential to personal development and necessary for living in and contributing to a developing and changing social milieu;
- To provide learning experiences which increase the child's awareness of and responsiveness to the changes in and just demands of society and to prepare him for constructive and effective involvement;
- To promote and intensify the child's knowledge of identification with, and love for the nation and the people to which he belongs and;
- To promote work experiences which develop the child's orientation to the world of work and creativity and prepare himself to engage in honest and gainful work.

- B-1.3 What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

There are no regulations that govern curriculum policies. Policies for curriculum development, set forth by the Department of Education, Culture and Sports, through orders, circulars and bulletins are aligned to national thrusts and contributory to the achievement of development goals.

However, some of the laws, which have relevance to the curriculum, are:

- Section 3(10), Article XIV of the Constitution mandates the study of the Constitution as part of the curricula;
- Section 6, Article XIV mandates the use of Filipino as a language of instruction in the educational system;
- Section 19(2), Article XIV states *...All educational institutions shall undertake regular sports activities throughout the country in*

cooperation with athletic clubs and other sectors...

- RA 4723 (Music Law) mandates the teaching of Music in the schools.

The more recent laws affecting the curriculum are a) the lengthening of the school calendar from 185 to not less than 200 days per school year; and b) the integration of concepts on *human rights, the environment, dangerous drugs, computer education*.

B-2. Curriculum change

- B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.

In 1989, the new secondary education curriculum (NSEC) was implemented after being piloted for 5 years. The NSEC was the centerpiece of the Secondary Education Development Program (SEDP), a major curriculum reform program funded by the Asian Development Bank. The NSEC replaced the 1973 Revised Secondary Education Program (RSEP).

The 1989 curriculum is student-centered and community-based. It is a one-track curriculum where the eight (8) subject areas are intended to provide general education. Some of the new features of the new secondary education curriculum are:

- Values education is offered as a separate subject area although values development is integrated in all the subject areas;
- Technology is emphasized in Science and Technology and in Technology and Home Economics;
- Desired learning competencies are identified in each subject area; and
- Critical thinking is emphasized to promote creativity and productivity in all levels

The 1989 curriculum provided for the adoption of a single textbook and a teacher's manual for the government schools and the mass training of teachers to enable them to implement the new curriculum and use the accompanying instructional materials.

- B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for curriculum development in the next five to ten years, such as: globalisation; information technology; communication; and national/cultural identity?

Within the next 5-10 years, a review of the curriculum would likely focus on the identification and implementation of a core curriculum. The curriculum

would comprise core subjects which are studied every day and a set of electives to complete the requirements for graduation from secondary school.

Another change would be on the length of basic education. There are proposals to increase it to eleven (11) years of basic education. In this case, streaming would also be instituted at the start of upper/senior secondary school once a fifth year high school is added.

The advent of computers and information technology would also cause changes in the curriculum, specifically in the use of multi-media technology in the teaching and learning process.

B.3 Curriculum Development Processes

- B-3.1 Is your country's system of curriculum development centralised, partially centralised or decentralised? Please explain your answer.

The system of curriculum development in the country is partially centralized and decentralized. While the curriculum is developed at the national level, the implementation of the curriculum is left to the teachers in the schools. The learning competencies and implementation guidelines are defined at the national level while the resources to be used including the teaching and assessment strategies and other processes are defined by the teachers.

Moreover, teachers, head teachers, school principals, supervisors, experts from institutions of higher learning, non-government organizations, parents and students are involved in curriculum development.

- B-3.2 Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-governmental agencies, private companies, etc.).

The agencies involved in curriculum development are the Curriculum Development Divisions of the Bureaus of Elementary and Secondary Education. Other agencies invited are the Curriculum Development Divisions of the Bureaus of Non-Formal Education and Physical Education and School Sports, teacher education institutions, the institute for science and mathematics education development and professional organizations.

- B-3.3 In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc.) accommodated in the decision making processes? Please give some recent specific examples.

Consultative conferences and seminar-workshops with the different groups are the most common ways of involving other agencies in the decision-making

process relative to curriculum development concerns.

Changing the sequence of the courses in the social studies program is a recent example. Previously, Economics was taught in Year III and World History in Year IV. Consultations with professional groups and inputs from teachers and the academe resulted in the issuance of a policy to teach World History in Year III and Economics in Year IV. The first three years of high school education would be a study of Philippine History, Asian History and then World History.

- B-3.4 In what way does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.

Active participation and involvement of the various sectors of society including representation from indigenous cultural communities, the disabled and gifted is encouraged. The integration of local color in the instructional materials and including learning experiences relative to respecting their rights and preserving their cultures and traditions are other ways of promoting unity and cultural diversity.

Content or activities that discriminate on our Muslim brothers in the southern part of the country are not included in instructional materials and so with materials which offend the indigenous peoples.

- B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.

Children with special needs are attended to through the special schools created for them. Examples are the Philippine School for the Deaf and Blind, the Philippine High School for the Arts and the Philippine Science High Schools. In some elementary schools, the children with special needs are taught in a self-contained class but are mainstreamed as soon as they are academically and socially prepared.

Section C: Curriculum Design

Every country has to make decisions regarding the overall approach to curriculum design as well as to the subject areas that will be included in the school curriculum. This section aims to describe the school curriculum in each country.

C-1. Curriculum organization

- C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

The approach to curriculum design in the Philippines is content-topic-based and competency-based. Most of the subject areas have a list of learning competencies expected to be mastered by the students at the end of each grade/year level and at the end elementary/secondary schooling. Some subject areas have a combination of both: learning competencies under each content/topic.

The Bureaus publish and issue to the field the learning competencies.

- C-1.2 Please describe whether your curriculum is mainly designed to:

- be implemented by teachers as written OR;
- be interpreted by teachers and implemented with variations OR;
- give teachers total freedom to create the curriculum OR;
- some combination of the above.

Please give examples to illustrate your answer.

The curriculum is designed to be interpreted by teachers and implemented with variations. The schools are even encouraged to innovate and enrich or adapt as long as they have met the basic requirements of the curriculum. In other words, the enrichment or enhancement should be in addition to or on top of the curriculum.

The regional science high schools have an enriched science and mathematics program. The students take additional science and mathematics subjects. In some private schools, other English, science or mathematics subjects are taken in lieu of Values Education because they already have subjects like Religion or Moral Values and Ethics.

C-1.3 Basic structure of the current and/or future school curriculum

Please give the range of subjects offered in your country in years 1 - 9/ grades 1 to 9, giving specific information on the following matters:

- indicate what subjects are compulsory or optional;
- indicate the time allocation for each subject (in hours per year). Note - if your country does not have a pre-set time allocation either estimate or state 'not available');
- How many hours a week are allocated to co-curricula (or extra curricula) activities? Are these compulsory or elective?

	Subject	Grade/Year									
		G-I	G-II	G-III	G-IV	G-V	G-VI	Y-I	Y-II	Y-III	Y-IV
Compulsory	Character Ed./Good Moral and Right Conduct	X	X	X	X	X	X				
	Science and Health	X	X	X	X	X	X				
	Civics and Culture	X	X	X	X	X	X				
	HE & Livelihood Ed.	X	X	X	X	X	X				
	Music and Arts	X	X	X	X	X	X				
	Filipino	X	X	X	X	X	X	X	X	X	X
	Social Studies							X	X	X	X
	Values Education							X	X	X	X
	Physical Education	X	X	X	X	X	X				
	PE, Health and Music							X	X	X	X
	Mathematics	X	X	X	X	X	X	X	X	X	X
	Technology and Home Eco.							X	X	X	X
	English	X	X	X	X	X	X	X	X	X	X
	Science and Technology							X	X	X	X

There are eight (8) subject areas in the school curriculum for basic education. These are all compulsory subject areas; there are no electives or optional subject areas. Except for Physical Education, Health and Music, students meet daily in all the other subject areas.

At the elementary school level, the time allotments vary from 20/30 minutes daily or 67/100 hours per school year (for Character Education/Good Manners and Right Conduct) to 40 minutes or 133 hours (for mathematics, social studies) to 60 minutes daily or 200 hours per school year (for Filipino, Livelihood Education) and 267 hours for English.

Physical Education, in the elementary schools is 120 minutes per week on alternate days or 80 hours per year while Music and Arts is taught 90 minutes per week. Health is combined with Science and is taught 40 minutes daily or 133 hours per school year. In the secondary schools, Physical Education (PE) is taught 120 minutes weekly or 80 hours per school year while Health and Music are taught at an average of 60 minutes a week or 40 hours per school year. Citizens' Army Training (CAT) remains a component of PEHM in Year IV meeting 80 minutes a week.

At the secondary school level, the time allotments vary from 40 minutes daily or 133 hours per school year (for Filipino, Social Studies, Values Education, Mathematics, Physical Education, Health and Music, and English) to 80 minutes daily or 267 hours per school year (for Science and Technology and Technology and Home Economics).

The time allocated for co-curricular activities vary across clubs or activities. Membership in the school paper, subject area clubs, dance troupe, choir, sports is not compulsory.

C-1.4 Integration

When the NIER survey on curriculum was undertaken ten years ago, curriculum integration was identified as a key issue and concern. In that earlier survey integration was viewed as a continuum. At one end of the continuum was combining the knowledge of several subjects with similar features into one subject area while at the other end was an interdisciplinary approach to integration through the organization of the content and teaching-learning process around themes.

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

Integration is a major issue because it overloads the curriculum. Government thrusts/themes mandated by law are integrated in the curriculum. Integration happens where and whenever possible in the subject areas.

C-1.5 Specific curriculum areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated area, at what level of schooling they are taught, etc.).

Themes/Areas	How your curriculum deals with the theme/area	Level of Schooling
Values education	Separate	Elem./Sec
International understanding	Integrated	Elem./Sec
Education for the world of work	Separate	Elem./Sec
Foreign languages	Separate/Integrated	Elem./Sec
Computer/ information technology	Integrated	Secondary
Health education	Separate/Integrated	Elem./Sec.
Environmental education	Integrated	Elem./Sec
Human rights	Integrated	Elem./Sec
Cooperatives	Integrated	Secondary

C-1.6 Curriculum coverage

In designing the curriculum, countries need to make decisions about the breadth and depth of subject content and approaches. Some countries believe that the general education provided in their school system requires students to cover too many subject areas. There are pressures, also, to add new subject areas such as environmental studies; international understanding; information technology etc. Other countries are concerned about the number of subjects that students are required to study either because of the pressure this puts on students or because it means that subjects are approached in a way that does not lead to a depth of understanding or to the fostering of creative and critical thinking. There is also concern that overcrowding of the curriculum is being caused by the fact that schools are being asked to take responsibility for a wide range of social issues that were once viewed as the responsibility of families or the community as a whole (for example, appropriate behaviour, personal etiquette, etc.).

C-1.6.1 What are the issues in your country with regard to pressure on the coverage of the curriculum?

Aside from its having one of the shortest in terms of the length of basic education, studies on the Philippine educational system point to an overcrowded curriculum. There are eight (8) subject areas and except for PEHM, learners study and do homework on all the other seven (7) everyday. In addition to the 8 subject areas, learning competencies developed for the grade/year level are more than enough for the school year. This is evidenced by reports that the content in the science and mathematics subjects in high school cannot be completed in one school year. The backlog in the previous year affects the teaching/learning process in the following year. The same is true in the elementary level.

Pressure from professional groups also affects the coverage of the curriculum. These groups lobby for the inclusion of certain subject areas or concepts in the curriculum. A specific example is the group of home

economics practitioners, which supported the teaching of home economics not only to girls but also to the boys.

In the elementary level, the subject *Home Economics and Livelihood Education* include home economics, agriculture, handicrafts and retail trade. Both boys and girls study this subject.

The performance of the Philippines in international assessments needs a lot of improvement. That the curriculum should develop students who are *globally competitive* is another pressure the education sector has to contend with.

C-1.6.2 What steps, if any, are being taken to address these concerns?

Some of the steps taken to address these concerns include the continuing review of the curriculum and the improvement of the teaching/learning processes. The teacher has been identified as the most important in the process, hence, training programs to upgrade the competencies of the teachers are a government priority.

Section D: Curriculum Implementation

Unless there are effective strategies for the implementation of curriculum policies, an education system does not derive the full benefits that should accrue from the school curriculum. This section of the questionnaire seeks responses to key aspects which are crucial for curriculum implementation: teacher development; resource provision; classroom strategies and student assessment.

D-1. Teacher Professional Development

A good curriculum will simply remain a curriculum on paper if it is not implemented properly. The teacher and the instructional leaders in the school are the key to the implementation of that curriculum. The questions below seek to find out how teachers in your country are prepared professionally for teaching, and the programmes available for their continuous professional development.

D-1.1 Pre-service teacher development

D-1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

Aside from completing a four-year pre-service course in teacher education institutions, the prospective teacher must pass the Licensure Examination for Teachers (LET), to enable him/her to teach in government elementary or secondary schools.

D-1.1.2 Is there a prescribed national curriculum/guidelines/ framework for pre-service teacher education in your country?

There is a prescribed national curriculum/guidelines/framework for pre-service teacher education in the Philippines. These are implemented by the Teacher Education Institutions. The *Policies and Standards for Teacher Education* is embodied in MECS Order No. 26, s. 1983.

D-1.1.3 What is your country's programme for pre-service teacher development?

Level of Teacher	Title/Length of Program	Type of Institution	Minimum entry requirement
Pre-School			
Elementary	Bachelor of Elem Education (4years)	College of Education Teacher Ed Inst.	High School Graduate
Secondary	Bachelor of Secondary Education (4)	College of Education Teacher Ed Inst	High School Graduate

A person who finishes a non-education degree in a discipline allied to education (e.g. Bachelor of Arts in English or Bachelor of Science in Biology or Mathematics) must take 18 units of professional education subjects. Teachers in the secondary education level must have the appropriate major or area of specialisation.

Teachers who plan to teach in preschools complete a degree of Bachelor of Elementary Education (BEEd) with specialization in the area of preschool education.

D-1.1.4 Pre-service teacher education programmes usually include components of education foundations (e.g. sociology of education, history of education); general methods courses (e.g. educational technology, classroom management, assessment); subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practicum. Please describe the general components of the pre-service teacher education programme in your country.

The pre-service teacher education program is a four (4)-year degree course. The first two years is a general education curriculum, which include mathematics, science, English, Filipino, Social Science, PE, and Humanities. The last two years are the professional education and the specialization/concentration courses. The professional courses include methods of teaching, psychology of education, measurement and evaluation, and student teaching. The areas of specialization/concentration are specific to any of the eight (8) subject areas in basic education.

The ratio of general education to professional education to

specialization courses is 50:30:20, respectively.

- D-1.1.5 Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education? Please give specific examples to illustrate your answer.

For changes in the national school curriculum like the New Secondary Education Curriculum, conferences and collaborative activities are undertaken with the Colleges of Education or Teacher Education Institutions. The content of the different subject areas in elementary and in secondary are discussed in appropriate professional education subjects in the pre-service program.

Specialization in subject areas not offered in pre-service programs is developed. An example is Values Education. A program designed for teachers who would be able to teach Physical Education, Health and Music was also developed.

D-1.2 In-service teacher development programmes

- D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?

In-service professional development for teachers is both compulsory and voluntary. In most cases, INSET is voluntary although there are project-related staff development programs and those run by DECS' supervisors, which are compulsory.

INSET has become compulsory since the professionalization of teachers. In order to renew one's license to teach he/she must take an examination or present evidence of a number of units/hours of continuing professional education (CPE). INSET programs accredited by the Professional Regulations Commission can be considered as CPE.

- D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?

The financial support for the in-service professional development of teachers comes from the school or local offices. Board and lodging are

usually borne by the agency sponsoring the INSET program. Travel expenses are charged against school or local funds.

In cases where teachers go on their own, they pay for all the expenses or seek assistance from the local government unit or private agencies.

- D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?

Professional development opportunities available for teachers include enrolment in graduate studies, distance learning, membership in professional groups, subscription to journals and educational magazines, attendance in local and foreign seminar-workshops and conferences, staff meetings, inter-school visitations and peer teaching (involving master teachers).

- D-1.2.4 Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?

Incentives for teachers to participate in in-service training programs vary. In the Philippines, participation in INSET programs is for personal enrichment/upgrading, improvement of qualifications for promotion purposes, increased knowledge and the sharing of ideas.

- D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/voluntary in-service training provided; or teacher guides to the curriculum published etc.

Strategies used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools include mass training of teachers as in the 1989 secondary education curriculum or the training of trainers as in the 1984 elementary school curriculum. These training programs also include exposure to instructional materials (student textbooks and teacher's manual) used to teach the new curriculum.

In the integration of thrusts or other themes in the curriculum, accompanying instructional materials such as modules, flip charts,

worksheets and activity sheets are usually introduced to the teachers during INSET programs.

D-2. Resource Support

Countries are using a diverse range of materials to support the implementation of new curricula. Material support of various kinds may assist in the provision of information for students, provide a guide to teachers and assist teachers in implementing effective classroom programmes that actively involve the students in learning. This material support may take various forms such as: textbooks, videos, computer software, calculators, equipment and apparatus, multimedia, teacher guides and CD Roms. The following questions are designed to find out the kinds of support materials countries are currently using to assist teachers implement curriculum change.

D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:

- (1) Government directly sponsoring the writing, production, and distribution of text books
- (2) Government approving a particular selection of textbooks
- (3) The choice of textbooks entirely made by schools and/or teachers
- (4) Other methods - please specify.

Please indicate which of the above apply to your country.

In 1987, the government directly managed and supervised the production and distribution of textbooks and manuals through the Instructional Materials Development Council (IMDC). However, with the passage of RA 8047 (Book Publishing Industry Development Act), the development, production and distribution of instructional materials have been transferred to private publishers.

The law provides that the Department of Education, Culture and Sports prescribes the learning competencies for the subject areas in all the grade/year levels. The books that are developed by the private sector, are submitted to the Instructional Materials Council Secretariat (IMCS), an attached agency of the DECS, for evaluation. Approved textbooks are listed in a catalogue where schoolteachers and principals choose the books to be bought for their respective schools. RA 8047 further provided for multi-adoption of textbooks rather than single adoption.

D-2.2 What other teaching/learning support materials are available for schools (eg. teacher guides, video tapes, computer software, CD-ROMs etc.)?

Other teaching/learning support materials available in the schools are teacher's guides or manuals, teacher support/resource materials, workbooks for students, science and THE (Technology and Home Economics) equipment/apparatus, video and cassette tapes, educational computer software, CD

ROMs, charts, maps and models.

- D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise etc)

The process of developing supplementary materials is very similar to that of developing the textbooks. In the case of enterprises, they invite specialists from the DECS as developers/writers of the supplementary materials. Development would include writing the drafts, field-testing, finalization and submitting to the IMCS for evaluation.

Private publishers are invited to submit their supplementary materials to the IMCS which reviews and evaluates them according to set guidelines.

- D-2.4 How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

Within the budget for maintenance and other operating expenses of government schools, are allocations for the purchase of instructional materials. Thus, in the government sector, the textbooks are *loaned for free* to the students during the school year. In the private schools, the parents of the students buy the textbooks.

D-3. Community Support

- D-3.1 In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO's, the religious community etc) supporting curriculum implementation? Please give specific examples.

The support extended by the community for curriculum implementation would be the provision of manpower, financial and material resources. Through the Parents-Teachers and Community Association (PTCA) in every school, the organization make plans for fund-raising to buy some materials for the school or to finance some improvements, sponsor the participation of students and teachers in co-curricular activities and sometimes serve as resource persons in class or school activities.

Other non-government organizations and business establishments also provide support in the form of instructional aids and materials.

D-4. Classroom Strategies

So far the questionnaire has been concerned about the implementation of the planned curriculum. However, the teaching methods employed also have a critical influence on curriculum implementation.

The teaching methods employed also have a critical influence on curriculum implementation.

D-4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

The strategies most commonly employed by teachers to introduce new teaching approaches/strategies to support curriculum implementation are demonstration teaching, experiential learning, workshops and the *learning action cells*, a continuing mechanism for in-service training.

D-4.2 What are the major issues and concerns about teaching methods in your country?

Probably some of the concerns about teaching methods are the inadequacy of equipment or materials for teaching and the large classes in many schools.

D-5. School-based Student Assessment

A key issue for the effective implementation of the curriculum involves students and their learning at the school level. Countries use a variety of strategies to assess student learning. School based assessment provides feedback to teachers with respect to the effectiveness of their teaching, and provides students and parents with essential information about student progress.

D-5.1 Data is collected to assess students' performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc), and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

The most common ways of assessing students' performance are through paper- and-pencil tests, practical work, production of items or projects and the observation of student participation in class discussions and activities.

An emerging issue is the appropriateness of the tests considering the wide variation of student abilities in a class. Individual performance tests or outputs, as means of assessing students is not practical due to the large number of students in the classes.

- D-5.2 There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?

The main purposes of assessment at the school level are a) to improve the teaching and learning process, b) to identify strengths and weaknesses of the students, c) to determine the performance and/or achievement of the students in the subject area and d) to report student progress to parents.

- D-5.3 Performance can be reported as a percentage rating (e.g. 75%, 80%, etc), grade rating: (e.g. A, B, C, etc.) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

Performance of students in the Philippines is reported as a percentage rating. A student obtains a rating in each of the subject areas, which is composed of his performance in the periodic test, quizzes, class participation, assignments and projects submitted. The rating/grade from the second grading period to the final grade is cumulative, meaning the final grade for the grading period is 30% of the previous grading period and 70% of the current.

The subjectivity of the rater (teacher, in this case) in grading class participation and involvement, cannot be avoided, yet a qualitative description of student performance would put a heavy load on the teacher.

- D-5.4 Does your country have any external examination system? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (e.g. how it might influence the aims/goals of the planned curriculum).

The National Educational Testing and Research Center (NETRC) is tasked with administering the national achievement tests to students leaving the sub-sector, that is Grade VI and Year IV learners. The tests are on 5 subject areas and are based on the learning competencies for the elementary and secondary levels.

D-6. Barriers and Constraints to Effective Curriculum Implementation

The effective implementation of curriculum is dependent on a multitude of factors. Countries report that difficulties/barriers that have been identified as constraints to effective curriculum implementation include: inadequate support instructional materials; large class sizes; language of instruction; out-of-date materials; teachers qualifications, teacher availability; teachers knowledge, skills and attitudes; and the performance of teachers and principals.

D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

Some of the more serious difficulties to effective curriculum implementation are inadequate support instructional materials, large class sizes, teacher availability (for specialized subjects in the secondary level) and the quality supervision of instruction.

Section E: Curriculum Monitoring and Evaluation

The main purpose of this section of the questionnaire is to find out whether any programme of curriculum evaluation is in operation in your country and how curricula are revised. It needs to be noted that this section is devoted to overall curriculum evaluation and not to individual students evaluation which has been covered in Section D.

This section is devoted to the overall curriculum evaluation and not to individual student evaluation covered in D. It discusses program of curriculum evaluation and how the curriculum is revised.

E-1. Monitoring and Evaluation

There are a number of ways in which the curriculum can be monitored and evaluated. For example, monitoring visits by supervisors/inspectors, consultative assemblies and curriculum conferences.

E-1.1 What processes are used to monitor curriculum implementation in your country?

At the national level, the curriculum is monitored and evaluated through consultative conferences and the conduct of research studies or surveys. Sometimes, curriculum specialists visit the schools to monitor the implementation of the curriculum.

At the local (region and division) levels, supervisors conduct monitoring

visits to the schools (review the class program in terms of time allotment, content and availability of instructional materials), observe classes and administer diagnostic and achievement tests.

At the school level, the school administrator and the department heads monitor curriculum implementation through observation of classes and checking of lesson plans.

E-2. Curriculum Evaluation

Countries have a variety of strategies for curriculum evaluation such as: analysis of curriculum documents with respect to policy statements; validation conferences with relevant stakeholders; and pilot studies in a few school settings.

E-2.1 Please describe the mechanisms/major tools used in your country for curriculum evaluation?

Mechanisms for curriculum evaluation include the conduct of relevant research studies on the curriculum, consultative conferences, analysis of documents and instructional materials.

E-2.2 How are the results of the national curriculum evaluation used in your country? For example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.

Results of national curriculum evaluation serve as baseline information for policy formulation and standard setting and provide direction for areas of improvement and development of the curriculum.

E-3. Monitoring of Local Curriculum

E-3.1 In a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?

The implementation of the subject area Technology and Home Economics (THE) in the schools can be considered as a locally-controlled curriculum component because the curricular offering is based on the existing and emerging industry of the community where the school is situated. Supervisors monitor the THE offerings to determine the appropriateness to the community.

E-4. Student Assessment for Curriculum Monitoring

Some countries are using national student achievement studies to evaluate the effect of the curriculum. For example, national assessment programmes, local assessment programmes, the observation of classes, performance testing etc.

E-4.1 What types of assessment are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.

Impact studies on the curriculum are project-related. For example, impact studies, in the form of achievement tests, for any new curriculum would be conducted after the full implementation of the curriculum across the grade/year level.

E-5. Research and Curriculum Development

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

Some researches conducted to evaluate the impact of the curriculum on the overall quality of education:

- *Survey of Outcomes of Elementary Education (SOUTELE).* In 1988, this study discovered that the overall performance of 10,000 Grade VI pupils it tested was 47.5%. This meant that the "average Grade VI student was able to answer correctly fewer than one-half of all the test items given to him."
- *PRODED Impact Study, 1991.* In this study, the overall mean performance of Grade VI pupils was shown to have remained below 50%. Tests administered to evaluate the effects of the PRODED on student learning showed that the average mean performance of Grade VI pupils in the sample regions was 47.3%.

The same study found a decreasing level of achievement in the higher grades. Achievement scores were found to decrease steadily from Grade I to Grade V, with the lowest gains in achievement being posted by those in Grade VI. The study also revealed that, across all subjects in the NSEC, fifth-grade pupils gained more than did those in the sixth grade.

- *The Monitoring and Evaluation of the Secondary Education Development Project in its First Year of Implementation in the area of Teacher and Student Performance*

Findings of the study are the following:

- *There were significant gains made by teachers and students in the competency tests given in all subject areas in all regions.*

- *The average performance, in general, of the first year students during the first year of implementation of the NSEC was below the 70% mastery level target set by the SEDP.*
 - *The teachers' and students' mastery of the desired teaching and learning competencies respectively fall short of expectations.*
 - *The mass in-service training given to the teachers on the NSEC did not seem to have a strong impact on the improvement of the teachers' teaching competency as manifested by the results of the competency tests given.*
 - *There seemed to be a close relation between teacher competence and student achievement.*
 - *Ratings of teachers on their actual teaching performance were only slightly related to the students' achievement.*
- *Student Achievement in the New Secondary Education Curriculum.* Some of the findings are:
 - The NSEC is more effective than the 1973 Revised Secondary Education in producing knowledge gain.
 - Both curricula have not effected scores higher than 50% except in Filipino.
 - Some schools registered loss scores from pre to post test.
 - Students from the National Capital Region consistently obtained high scores.
 - Mean scores across regions differed significantly implying a wide disparity in the quality of education among the 14 regions.
 - *The Responsiveness of the Bachelor of Secondary Education (BSEd) Curriculum to the New Secondary Education Curriculum.* Relevant findings include:
 - There was little degree of complementarity between the desired competencies that students should develop (DLC) and the expected competencies that their teachers should possess as a result of their teacher training experience.
 - This degree of complementarity or matching of student and teacher competencies varied with each course in the BSEd curriculum. The closest match was found in the syllabi for Filipino and mathematics but to a lesser degree in the English, Social Studies, Science, Values Education and PEHM syllabi. The weakest match was found in the Technology and Home Economics (THE) syllabus.
 - The syllabi for each course in the BSEd Curriculum also differed depending on the institution that prepared them. Consequently, the result of the matching exercise varied accordingly.
 - As a rule, the BSEd curriculum offered in teacher education institutions closely adhered to the DECS guidelines.
 - In most instances, the syllabus for the course in professional education matched with the DECS-prescribed description of these courses.

Section F: Further Comments

If you have any further comments to make that are relevant to the purposes of this questionnaire, please add here.

The continuing curriculum review in basic education in the Philippines would provide for the more in-depth indigenization or localization of the curriculum, the integration of information technology or multi-media in the teaching-learning process and benchmarking which would provide a valid and reliable data of school and student performance.

Republic of Korea

Gyu Ho Hwang

<Country Report of Korea for the NIER Comparative Study of School Curriculum>

Section A

A-1.5

24.8% of Total Central Government Expenditure in 1996.

In 1997, the total public expenditure from the central government on education is 15,240,000,000 US\$, which is 4.2% of the GNP. If the local governments' expenditure is included, the percentage is 4.8%.

Section B: Curriculum policies

B-1. BACKGROUND

B-1.1 Social/economic/political/cultural contexts of curriculum policies

Education cannot stay alone separated from other social/economic/political contexts. The following examples illustrate how these contexts are reflected in curriculum policies in Korea.

- (1) Economic context: There are much pressures from the industry to adjust school curriculum for the world of works. One recent trend is that more emphasis is given on the information and communication technology in school curriculum. High-order thinking skills are also emphasised partly because it is regarded that the new century will require more creative work forces.
- (2) Social context: Changes in social circumstances sometimes require changes in curriculum. For example, concern for the environmental issues has brought a new subject of environmental studies at both lower and upper secondary levels. The increase of juvenile delinquencies also brings more concern for the personal development and moral education. Other issues reflected in curriculum reform are: international understanding; sex education; health education, etc.
- (3) Political context: New government often initiates a new educational reform, sometimes without enough continuity with the preceding government's reform plan. For example, the newly elected government established a 'Council for New Education Community' as an advisory council for the President, as the previous government had established the Presidential Commission for Education Reform.

B-1.2 Educational goals/aims for the compulsory education sector

The general goals of Korea's education stated in the Education Law are, under the ideal of 'hongik-inkan'(a man contributing to the overall benefit of humankind—the founding spirit of the first kingdom in Korean history), to assist all people: to discipline themselves as well-developed persons, to lead a humane life through developing the ability for independent life and democratic citizenship, and to contribute for developing the nation as a democratic state, and for promoting the prosperity of all humankind.

On the basis of the stated ideals of education, the well-educated person targeted by the national curriculum is defined as follows:

- (1) A person who seeks to develop his/her own individuality on the basis of well-rounded and wholesome development;

- (2) A person who demonstrates creative ability on the basis of a solid grounding in basic knowledge and skills;
- (3) A person who explores career paths on the basis of broad intellectual knowledge and skills in diverse academic disciplines;
- (4) A person who creates new values on the basis of understanding of the national culture; and
- (5) A person who contributes to the development of the community where he/she lives, on the basis of democratic citizenship.

The primary school education puts emphasis on helping students acquire basic abilities, skills and habits essential for learning and daily life. The secondary school education puts more emphasis on the democratic citizenship and career education on the basis of the primary education.

B-1.3 Regulations governing curriculum policies

Korea has a national curriculum, which has been revised regularly on a five to ten year cycle since the first revision in 1954. The national curriculum system is based on Education Law, which stipulates that the Minister of Education(MOE) is responsible to provide the basic framework of the school curricula. The national curriculum is proclaimed in the form of MOE's circular, and it is mandatory for all schools from kindergarten to upper-secondary, including the private ones. The national curriculum sets strict regulations for the number of school days, subjects to be taught for each grade, time allocation for each subject at each grade, although there are some rooms for modification either by local education authorities or individual schools. The national curriculum prescribes not only the range of subjects to be offered at each level of formal education, but also the content of and the time allocation to each subject. Moreover, it works as criteria for developing textbooks. The national curriculum also provides general guidelines for teaching-learning activities and methods of assessment.

A separate government regulation defines the types of textbooks to be used in the classroom and the procedures for textbook authorisation. In Korea, textbooks are classified into three types. The first is the government-copyrighted textbooks, which includes nearly all the primary textbooks and those for Korean, Korean history and moral education at secondary level. Commercial textbooks authorised by the MOE are the second type, and this applies to the most textbooks used in secondary education. The third type, which is rare in use, is those approved by the MOE on the request of school principals and Superintendents of Municipal and Provincial Board of Education(MPBE).

B-2. Curriculum Change

B-2.1 Curriculum changes over the past five to ten years

The current sixth national curriculum was revised in 1992, and has been implemented from 1995. The seventh revision, which will be introduced into schools in the year 2001, was completed at the end of 1997. Now, the preparation for implementing the new curriculum is under progress.

The sixth national curriculum has brought more freedom and autonomy to individual schools

through a decentralisation policy of curriculum administration. It diversifies courses and subjects and decreases the number of compulsory subjects at secondary level. Particularly, at secondary level it introduces elective subjects such as: Chinese charters and classics, computer science and environmental studies for lower secondary; philosophy, logic, psychology, education, economics for daily life, religion and environmental science for upper secondary. Secondary schools may also develop new subjects. For primary level, times for optional courses are also allocated, which can be used either for enrichment programmes of the basic subjects or for entirely new subjects. Moreover, the sixth curriculum encourages the individual schools and local educational authorities to modify the contents of each subject matter according to the needs of students and unique situations of the school and localities.

Other important changes in recent times are: introduction of English at primary level from grade three; imposing technology and home economics as compulsory for both boys and girls at secondary level (before, boys take the technology and girls take the home economics); introduction of school evaluation by local educational authorities, and local educational authority evaluation by the MOE.

B-2.2 Predicted changes in national curriculum for the next five to ten years

A new school curriculum (the seventh) will be introduced from year 2,000. The major characteristics of this curriculum are as follows.

- (1) From grades 1 to 10, students will take the National Common Courses based on national standards. From grades 11 to 12, they will follow the elective-courses based curriculum.
- (2) The concept of differentiated curriculum is being introduced for Korean, English, Math, Science, and Social Studies. For the first to 10th grades, curriculum is differentiated on the basis of students' academic capability. For the 11th to 12th grades, curriculum is differentiated on the basis of students' interests and career.
- (3) The school discretionary time is being extended. It will be used mainly to encourage students' self-directed learning in schools. Besides, it will be used for students' independent studies or other creative activities within schools.
- (4) The concept of elective-courses programs is being introduced. For the 11th to 12th grades, students will choose any course they want to take, and they will prepare for their future without any strings attached from outside.
- (5) To reduce the amount of subject content students have to cover every year, total amount of curriculum contents shall be reduced by 30%, redundancy of contents shall be minimised, and the organization of contents shall be in an orderly sequence and shall maintain integrity.
- (6) Curriculum quality will be controlled through systematic curriculum evaluation procedures and establishment of performance standards.

Speculating upon the basis of the major characteristics of the new curriculum, it is expected that significant changes will occur in relation to the implementation procedures of the curriculum rather than to the structure of the curriculum itself. That is, streaming or setting methods will be more widely used particularly at secondary level to implement the idea of curriculum differentiation introduced by the new curriculum. Regarding to the changes in the structure of curriculum, it will become more

flexible at the secondary level in the sense that students are allowed more elective courses. It is also expected that second foreign languages (other than English) may be introduced at the lower secondary level in some schools. Concerns for information and communication technology, moral and personal development, creative thinking skills, self-directed learning and independent study skills, environmental studies, international understanding, preparation for the Unification, literature and classics reading and extra-curricular activities are expected to be sustained in curriculum reform arguments.

B-3. Curriculum Development Processes

B.3.1 Degree of centralisation of curriculum development

The curriculum policy in Korea, until quite recent times, can be described as highly centralised. The MOE has overall responsibility for control of curriculum, and MPBEs or individual schools do not have enough autonomy to decide what to teach, or even how to teach. It is within this context that recent curriculum revisions put more emphasis on decentralisation of curriculum control. The sixth curriculum, for example, allows local education authorities to select appropriate subjects and to decide the unit number of courses at high school level. It also encourages individual schools to modify the national curriculum or to develop a new subject, based on the needs and circumstances of the school and local communities and on the interests of students, teachers and community members. This decentralisation policy is expected to continue in the current curriculum revision. It is hoped that by giving more autonomy to schools and local authorities, the curricula would be more appropriate for the individual schools and students. Moreover, it will also contribute to increase the diversity of educational programmes.

However, the current situation can be aptly described as a 'trial stage'. Due to lack of sufficient experiences in curriculum development at local level in Korea, and partly due to other constraints such as teacher shortage or surplus, and college entrance examination system, significant differences between schools or local areas educational programmes are hard to find. Although many teachers and local educational administrators admit the necessity and the desirability of decentralisation, they tend to think that the idea of localization is difficult to implement at present Korean educational situations due to the constraints of university entrance examination and the lack of experiences of teachers.

B-3.2 Initiation of curriculum development

The national curriculum is developed and implemented, in principle, by the Ministry of Education(MOE), though in practice, the research works for the curriculum development are conducted mainly by government funded educational research institutes, although in some cases special committees constituted of academics and specialists are set up for developing general frameworks or particular subject curricula. Korean Educational Development Institute (KEDI) used take the role, but in 1998, Korea Institute of Curriculum and Evaluation (KICE) was set up to take over the research works regarding the development of curriculum and student assessment.

In the case of the most recent curriculum revision, it was the Presidential Commission for Educational Reform (PCER) that set up the basic principles and directions of curriculum revision. The

following example of the seventh revision of the national curriculum may illustrate the general processes of curriculum development in Korea.

- (1) KEDI was commissioned by the MOE to develop the seventh National Curriculum in accordance with the principles set by the Presidential Commission for Educational Reform.
- (2) KEDI formed the Curriculum Revision Research Committee, including researchers of KEDI, university academics, school teachers, parents, and ordinary citizens.
- (3) KEDI conducted two-step researches. The first is the basic researches for curriculum revision which includes: evaluation of the relevance and effectiveness of the current curriculum; needs assessment of teacher, students, parents and laymen; international comparative studies of curriculum; evaluation of the integrated subject curriculum and textbooks. The second stage researches for developing general frameworks of school curriculum include: general curriculum frameworks for all primary and secondary schools; curriculum differentiation on the basis of students' academic ability; curriculum frameworks for vocational high schools; special high school curriculum frameworks for talented students on science, sports, foreign language, and arts.
- (4) KEDI published the general frameworks of the 7th National Curriculum Proposal and reported it to the MOE.
- (5) The MOE decided the basic frameworks of the seventh National Curriculum that defines the subjects to be offered and time allocation, and made it public.
- (6) The MOE commissioned KEDI and some other University research institutes to develop subject matter curricula. KEDI was commissioned to develop curricula for Korean Language, Physical Education, Fine Arts, English, and Second Foreign Languages.
- (7) The Committee for school curriculum approval examined final draft version of the curriculum, which is a legal advisory committee.
- (8) The MOE proclaimed the seventh national curriculum at the end of 1997.
- (9) Follow-up studies for the implementation of the new curriculum are conducted mainly by KEDI, which includes how to implement differentiated curriculum, how to use school discretionary time, etc. The development of textbooks for the new curriculum is also under progress.

B-3.3 Accommodation of group opinions in curriculum decision-making

At various stages of the curriculum development, wide consultation to professionals, teachers, parents, students, industry persons are made to accommodate diverse view points for the curriculum development. Each stakeholder provides their views in many different ways: eg. participating as a member of the committee; providing written comments on the draft version; writing articles or letters to news papers; attending the consultation seminars. The second foreign languages teachers association, for example, tried to increase time allocation for their subjects at the secondary level by organising a forum on future direction of foreign language education. Similar efforts were made by Korean history association to keep the subject as compulsory at the upper secondary level. Industries also expressed their concerns for the importance of information and communication technology, and foreign languages. However, such views were not fully accepted, on the rationale that students should be diminished of the burden from the overloaded curriculum.

Although the MOE or the commissioned research team try to accommodate stakeholders view point, it is not always possible to incorporate such views to the curriculum structure especially due to the too much pressures already existing in the curriculum. As a consequence, there are always complains from various groups that their view point is not fully accommodated to the curriculum revision. Particularly, school teachers often feel that their view point is not properly consulted or neglected in the curriculum revision. This causes special worries because without teachers' spontaneous commitment, the new curriculum revision cannot properly implemented.

B-3.4 Curriculum approaches to promote unity and cultural diversity

Promotion of unity is not an important issue in Korean curriculum development, since there are already high degree of cultural homogeneity. However, with the increasing cultural influences particularly from the Western cultures, there are on-going arguments for the importance of developing cultural identity to the new generation. Korean language and literature, moral education, and Korean history are often regarded as the key elements for sustaining national identity. Thus, in the seventh national curriculum more times are allocated to Korean language at the primary level.

One of the issues concerning the promotion of national unity is whether or not to teach Chinese characters at the primary level. Some argues that Chinese character is a part of the national culture, while more conservative group emphasises that teaching Chinese character should be delayed until students develop more secure cultural identity with the *Hangul*(Korean alphabets). Hot debates continue, but the conclusion is not yet agreed. But many primary school teaches Chinese characters at their own discretion.

Regarding to the promotion of unity, one important concern for future Korean education is the preparation for the Unification. Development of proper understanding of the common features and differences between South and North is the key issue in this area, with the correcting of the ideological misconception towards North Korea, and the recovery of brotherhood-ship among the younger generation with the North Korean.

In recent curriculum revision, promotion of diversity is one of the major concerns. Uniformity has been described as the major problem of Korean education. The MOE controlled not only the content but also the management of school curriculum. Even private schools should follow the national curriculum, and as a result, there are few differences between public and private schools. In a uniform and rigid system, schools cannot have the flexibility in providing educational programs. Accordingly, it is difficult for them to meet the diverse needs of individual students. For this reason, there has been an increasing demand for various policy measures that would introduce diversity to schools.

The first is the localization of curriculum. The sixth national curriculum allowed fifteen local educational authorities to provide guidelines for curriculum implementation and to decide some ranges of subjects to be taught. At the high school level, for example, the local authorities can now make decision on 106 units out of the total of 204. Also, school principals are given authority to add new subjects and to reorganize subjects content.

The second is to increase the number of elective courses. Although the fifth and the sixth national curricula allowed more autonomy to local authorities and schools to decide courses to offer their

students, they did not allow individual students to do so according to their own interests and levels of ability. Even optional courses are offered in those subjects where qualified teachers are available in their schools, which leaves students not enough room for choice. Moreover, the number of mandatory courses is so overwhelming that students feel them as a burden.

In order to provide students with various learning opportunities according to their aptitude, ability, and academic or career plans, the seventh curriculum focuses on, based on the proposal of the Presidential Commission for Education Reform(PCER), reducing the number of mandatory subjects and increasing electives, as well as differentiating curriculum according to achievement levels. The new curriculum will consist of two parts: the national common curriculum for the 1st through the 10th grade and one based on optional courses for the 11th and 12th grade. The curricula for major subjects, including Korean, mathematics, science, social studies and English, will be organized by different difficulty levels rather than by the grade, though the type will be different according to subject.

B-3.5 Provision for children with special needs

The children who need special education are estimated to comprise 2.4% of all of children in school age. Only about a half of the severely handicapped children are enrolled in special schools. Approximately 44% of the mildly handicapped are enrolled in special classes of regular schools and the rest receive integrated education in regular classes that do not provide appropriate education for the handicapped.

Several measures to improve special education for the handicapped have been introduced. Since 1988 teacher training programmes in special education have been offered to regular teachers. Teachers colleges provide compulsory courses in special education. The revision of the Special Education Promotion Bill in 1994 provided a legal basis of early education for the handicapped at regular kindergartens. Various benefit and incentives will be given those kindergartens that meet the requirements of the Bill. The Bill also requires kindergartens to offer teachers lectures or training courses on special education. Moreover, a law to promote the employment of the handicapped has been enacted recently as the public interest in vocational education for the handicapped grows.

The basic research in special education for the gifted has been conducted since late 1970s. The MOE also recognized the need to produce creative elite to lead society to cope with the drastic changes in the world. The MOE has designated science high schools, foreign language high schools, art high schools, and athletics high schools as special purpose high schools since the 1980s.

In order to identify the scientifically gifted at an early age and to provide them with specialized educational programs, the MOE founded the Kyonggi Science High School in 1983, and fifteen science high schools are in existence as of 1996. Courses in science high schools are divided into three tracks depending on students' abilities and their learning pace: (1) a regular course track where students follow all the courses in the curriculum for three years; (2) an advanced course track where students have opportunity for a deeper and higher level of learning; and (3) a special course track where students finish all the courses in the curriculum within two years and graduate earlier to go on to an undergraduate program at the Korea Science and Technology Institute. In other areas, there are fourteen foreign language high schools, sixteen arts high schools, and thirteen athletic middle and high schools. These high schools select students, develop curriculum, employ teachers, and manage

financial resources according to their own regulations.

In 1994, approximately 57 out of 174 regional offices of Education throughout the nation carried out special education programmes for the gifted in such areas as foreign language, mathematics, science, and computer science. These programmes are intended to improve abilities and creative thinking, to motivate learning, and to enable an earlier identification of the gifted. However, it has been pointed out that these programmes are not so effective due to the lack of facilities, materials, and teachers' professionalism, and overburden on teachers, and low budget. Therefore, the expansion of the financial support and training opportunities for special education teachers are urgently needed.

C.1. Curriculum Organisation

C.1.1 Basic approaches to curriculum design

Rote memorisation of fragmented knowledge is often criticised as the key problems of Korean education. The causes for this problem are attributed to: excessive use of multiple choice tests, particularly in the public examination for university entrance; lack of sufficient teaching materials and facilities; less innovative attitudes of teachers, etc.

However, in recent times, many educators begin to pay attention to the approaches of curriculum design. They argue that the present school curriculum states the content in terms of basic topics, concepts or knowledge, instead of outcomes, performances or skills pupil should achieve after learning the programme. Thus, in a report for the curriculum reform by the Presidential Commission for Educational Reform, it is clearly stated that the new curriculum should follow more outcome based approach to the curriculum design. It is hoped that with this new approach, the problem of rote learning could be diminished.

There may be some truth in such an observation. However, it may be also true that both topic based and outcome based approaches are used with varying degrees according to different subjects. This topic of curriculum design is relatively a new issue, but it is expected that this becomes one of the central concerns in the curriculum development in the near future.

C.1.2 Curriculum interpretation by teachers

As explained in section B.2 and B.3 above, the sixth national curriculum encouraged the individual schools and local educational authorities to modify the contents of each subject matter according to the needs of students and unique situations of the school and localities. This policy continues to be emphasised in the new curriculum. Moreover, in the new curriculum framework, the individual school may develop its own subjects according to the guidelines of local educational authorities.

One of the examples of modification of the national curriculum is to integrate contents of various subjects into a topic-work based instructional plan. Such an approach can be found in some primary schools particularly those adopt the 'open education' policy. However, at the secondary level, due to the public examination system for university entrance, modification of the curriculum, especially the reduction or omission of some parts of the curriculum is hardly expected.

C.1.3 Curriculum structure

The primary school curriculum comprises subject matter, extracurricular activities, and optional courses offered by individual schools. The subject matter consists of nine areas: moral education, Korean language, mathematics, social studies, science, physical education, music, fine arts, and practical arts. However, subject matter in grades 1 and 2 are integrated under unit activities in 'disciplined life,' 'intelligent life,' and 'pleasant life'.

The middle school curriculum consists of subject matters and extracurricular activities. Subject matter is divided into compulsory and elective subjects. Compulsory subjects comprise moral education, Korean language, mathematics, social studies, science, physical education, music, fine arts, home economics, technology and industry, and English. Elective subjects include Chinese character and classics, computer science, environmental studies, and others.

The high school curriculum comprises subject matters and extracurricular activities. Subject matters are divided into general and specialized subjects. General subjects consist of thirteen subjects: ethics, Korean language, Chinese character and classics, mathematics, social studies, science, physical education, music, fine arts, military training, vocational training and home economics, foreign language and free optional courses.

The table below shows the structure of the current (the sixth) school curriculum for the compulsory education.

	Subject	Grade/Year								
		1	2	3	4	5	6	7	8	9
C o m p u l s o r y	Disciplined Life	60	68	-	-	-	-	-	-	-
	Intelligent Life	120	136	-	-	-	-	-	-	-
	Pleasant Life	180	238	-	-	-	-	-	-	-
	Moral Education	-	-	34	34	34	34	68	68	68
	Korean Language	210	238	238	204	204	204	136	170	170
	Mathematics	120	136	136	136	170	170	136	136	136
	Social Studies	-	-	102	102	136	136	102	136	136
	Science	-	-	102	136	136	136	136	136	136
	Physical Education	-	-	102	102	102	102	102	102	102
	Music	-	-	68	68	68	68	68	34-68	34-68
	Fine Arts	-	-	34	34	34	34	68	34-68	34-68
	Practical Arts	-	-	34	34	34	34	-	-	-
	Home Economics	-	-	-	-	-	-	68	34	34
	Technology & Industry	-	-	-	-	-	-	34	68	68
	English	-	-	34	34	34	34	136	136	136
Optional	School Discretionary Time			0-34	0-34	0-34	0-34			
	Chinese Characters & Classics, Computer Science, Environmental Studies							34-68		
	Extracurricular Activities	30	34	34	68	68	68	34-68	34-68	34-68
Total		790 (70*)	850	952	986	1,054	1,054	1,156	1,156	1,156

* 70 hours for an orientation program in March.

** From 1 through 6, one period is equivalent to 40 minutes.

*** From 7 through 9, one period is equivalent to 45 minutes.

C.1.4 Curriculum integration

Curriculum integration is still one of the major issues in Korea, particularly for the first and second grade of primary education. All the subjects, except Korean language and mathematics are integrated into three broad subjects: Disciplined Life, Intelligent Life, and Pleasant Life. The 'disciplined life' covers mainly the area of moral education, with some elements of environmental study, economics, career education, and education for unification; the 'intelligent life' covers both science and social studies; and the 'pleasant life' covers art, music and physical education. The intention is that such an integrated approach would offer learning activities and experiences suitable for the stage of development of young children.

However, there are some criticisms that the integration in these subjects is only nominal, that is, the elements for each subject are simply combined into a subject rather than fully integrated in its proper

senses. Although there are some critics who are against the very idea of integration, it is expected that integration approach at lower primary level will continue.

The other issues concerning the curriculum integration can be found in such subjects as science and social study. Both subjects are taught as integrated until the upper secondary level, where science is separated into physics, chemistry, biology and earth science, and social study into geography, history, politics, economics and cultural studies, etc. However, even at lower secondary level, science and social study are often taught by different teachers according to the sub-areas of each subject. This is due to the fact that teachers for science and social study are normally trained for each specific sub-areas only. Thus, for example, physics-major science teachers do not have proper background knowledge for teaching biology or chemistry. To solve this problem, the MOE has recently introduced 'common science' and 'common social study' as new majors for the secondary teacher training courses. The MOE also encourages double majors for science or social study teacher candidates.

C.1.5 Integration of specific curriculum areas

To cope with the challenges of the new age, education need to pay attention to a new topics or areas of social concerns, which include among others, international understanding, education for the world of work, foreign language, computer or information technology, health education and environmental studies. In Korea, preparation for the reunification of the country is another important issues of social concern.

Such new areas of studies are generally integrated into the existing subjects. For example, environmental study is covered by such subjects as science and social studies, and international understanding is dealt with by social studies. However, these areas are also taught through separate subjects. For example, computer, environmental studies are one of the optional electives at both lower and upper secondary levels, and moral education, physical and health education are taught as a compulsory subject from primary to secondary levels. The table below shows how these themes are covered in the curriculum structure.

Themes/Areas	How your curriculum deals with the theme/areas	Level of Schooling
values/international understanding (e.g. moral/ethical issues etc.)	Moral Education Foreign Languages	G1-12 G3-12
education for the world of work	Practical Arts Home Economics, Computer technology	G3-6 G7-9
foreign languages	English one language among Germany, French, Spanish, Chinese, Japanese, & Russian	G3-12 G10-12
computer/information technology	After-school programmes Optional course	G3-6 G6-9
health education (e.g. diet, drugs, HIV/Aids)	Part of Physical Education	G1-12
environmental education	Optical course	G7-12
Others Military Training		G10-12

C.1.6 Curriculum Coverage

C.1.6.1 Issues Relating to Curriculum Coverage

One of the continuing criticisms for the curriculum in Korea is that it covers too much content, at too difficult levels for the developmental stages of students. One of the consequences of the fact that the school curriculum covers too broad areas of topics in each subject is that it makes classroom instruction to be focused on simple memorization, since only limited times can be spent on each topic and therefore each topic is dealt with in a very superficial way. In such a situation, creativity, the thinking skills, or the problem solving skills can hardly be developed.

The reason behind such a overload of curriculum is often attributed to the tendency that subject matter specialists want to keep their subject, and the sub-areas of each subject, as an important component of curriculum. For example, in the last revision of curriculum, they tried to change the Korean history subject from a compulsory to elective one at the upper-secondary level. However, it remained as compulsory due to the strong resistance from the academics of this area.

C.1.6.2 Actions to Address the Issues Relating to Curriculum Coverage

Recent curriculum revision has attempted to solve this problem by reducing the scope of topic in each subject by 30%, whatever this may mean. However, due to the so called subject area egocentrism (the tendency that each area specialists want to keep their area to remain in the curriculum), it is not easy to achieve. Other measures proposed to correct this problems are: change of the type of test, including that for university entrance examinations, to include more essay writing type questions; reform of textbook policy to enable to use more wide ranges of materials; introducing a new subject with a limited area of contents such as the 'modern Korean history'. On the other hand, the MOE encourages to reduce the number of subjects to be taught during each school term, so that students can concentrate studying a limited number of subjects. However, we have to wait and see how much real changes such measures would bring into classroom instruction.

Section D: Curriculum Implementation

D-1. Teacher Professional Development

D.1.1 Pre-Service Teacher Development

D.1.1.1 Requirements for Teacher Education Qualification

In order to ensure the qualification of teachers and a sense of commitment to teaching, graduates of teacher training institutes are required to be licensed according to criteria established by law. The Education Law (Article 79-1) classifies teachers and establishes the criteria for each category of teachers.

Teachers are classified into first level and second level teachers, assistant teachers, counselors, librarians, training teachers and nursing teachers. Each must meet specific qualification criteria and be licensed by the MOE as regulated by Presidential Decree. Kindergarten teachers are trained at colleges, vocational junior colleges and the Korea Air & Correspondence University. Vocational junior colleges train most of them.

Primary school teachers are trained at teachers' colleges, the Korean National University of Education(KNUE), the Korea Air & Correspondence University, graduate schools, graduate schools

of education and departments in colleges of education. Most primary school teachers are trained at the eleven teachers colleges. In 1981 two-year junior teachers colleges began to be upgraded to four-year colleges granting bachelor's degrees, and by 1984, all colleges were upgraded. From 1985 teachers colleges began to offer night and seasonal courses toward a bachelor's degree for in-service teachers who were trained in the previous system.

Secondary school teachers are trained at colleges of education including KNUE, departments of education in general colleges and universities with teaching certificate programmes, and graduate schools of education. Students of national colleges of education had previously been exempted from the tuition fees and screening test for employment after graduation, but the 1990 reform abolished this privilege for graduates of national colleges of education. Instead scholarships covering most tuition costs remain available to 40% of the students, and graduates of both national and private colleges of education are required to take a public screening test administered by the regional offices of education.

Graduate schools of education were established to upgrade the specialization and quality of teachers. They offer classes either in the daytime or at night and during designated seasons. Special education teachers for the handicapped are educated according to the grade level of the schools where they are expected to teach. Those who want to be primary school teachers take courses suitable for primary education. Those who want to be secondary school teachers are exposed to courses aimed at secondary school teaching. School librarians must be graduates of colleges and universities with a major in library science. Nursing teachers must be graduates of four-year colleges or vocational junior colleges, have pertinent majors, and have obtained nursing teacher's licenses. Technical training teachers must have a minimum educational background of vocational high school graduation as well as professional training.

D.1.1.2 Framework for Pre-Service Teacher Education

There are general guidelines for pre-service teacher education in Korea. These guidelines prescribe some basic components for the teacher training programmes. The details will be explained below(D.1.1.4).

D.1.1.3 Programmes for Pre-Service Teacher Development

Level of Teacher	Title/Length of Program	Type of Institution	Minimum entry requirement
Primary	BA courses for primary teachers /4yrs	- Eleven National Education Universities, - Primary Education Department of National Teachers Univ. - Primary Education Department of Ewha Womans Univ.(Private)	graduation of high school
Lower Secondary	BA courses for secondary teachers/ 4yrs	40 National and Private Colleges of education	graduation of high school
Upper Secondary	BA courses for secondary teachers/ 4yrs	40 National and Private Colleges of education	graduation of high school

D-1.1.4 Components of the Pre-Service Teacher Education Programmes

The curriculum of teachers' colleges for training prospective primary school teachers consists of general education and course work in one's specific major. Each category is further divided into electives and required classes. There are 46 credit of hours of general education courses which take up approximately 30% of undergraduate required classes. In general educational courses, there are four required areas: humanities, social science, natural science and physical education. General education also has elective classes in the humanities, language and literature, foreign language, social science, natural science, and the arts. Required classes comprise 65% of general education while elective classes comprise 35%. In general education, there is a continuation between required and elective classes. Required courses are introductory and comprehensive, while elective courses are specialized extensions of corresponding required classes.

Graduation requirements for colleges of education in those universities responsible for the training of prospective secondary school teachers include the completion of a minimum 140 credit hours of classes (prescribed by article 120 of Education Law) most colleges of education in private universities require 140 credit hours as a graduation requirement, while national universities actually require 150 or more credit hours for graduation.

The curriculum for colleges of education comprise the three areas of general education, courses in majors, and courses concerned with the teaching profession. There are three types of curriculum models for colleges of education. The first and the most popular common curriculum model, is the model that separates the teacher training course from the general education and major courses work. In this case, courses dealing with teaching are usually named 'education courses', and 'teaching materials and methods.' The second model combines each teacher-training courses with general education courses. In this model, courses related to teaching specific subjects, such as education courses and teaching materials and methods are designated as courses in a teaching major. The third and last model combines teaching courses with major subject matters, such as English education, math education and the like. In this model, some colleges of education designate specific general introductory classes to be taken along with the general education curriculum.

In 1982, the Ministry of Education began to determine which subjects would be eligible for minor

fields of study within each department and college. Since 1988, the authority to determine such criteria has been delegated to the heads of the universities in order to be more responsive to the increasing demand for qualified teachers to teach multiple subjects, particularly in small schools where one teacher must teach more than one subject.

D-1.1.5 Processes Undertaken by Pre-service Teacher Education

The MOE or any other central and local governments have no direct authority over the contents of pre-service teacher training programmes. Thus, it is up to the individual training institute or teacher trainer to ensure that pre-service training courses keep up with the changes in school curriculum and other areas of change in education.

However, in the recent evaluation of the colleges of education conducted by special commission appointed by the MOE, they included as an area of investigation whether the pre-service teacher training programmes properly reflect the current educational changes and curriculum reform movements. This will encourage teacher training institutes to make more efforts to revise their courses. The other way to encourage individual institute to keep up with the changes in school curriculum is through the screening test for the recruitment of teachers. Although the MOE or local board of education do not directly involve in making the test, knowledge and understanding of the new reform movements in the national curriculum are often questioned, so that candidates pay more attention to the educational changes.

D-1.2 In-service teacher development programmes

D-1.2.1 Professional development for teachers

In-service training of teachers seek to improve their educational expertise, to enhance the quality of their teaching, to establish a desirable view of the teaching profession, to encourage their sense of commitment to carry out their educational activities faithfully, and to cope with a rapidly changing society. In-service training has five categories: training for certificates; general training; professional job training; special training; and overseas training. Among these, the first category is compulsory for those who want to be certified for, eg. the first level teachers, principals, vice principals, librarians, and counselors. The certificate programmes last 30 days (180 hours) or longer. The general training courses aim to refresh the teachers' professional knowledge about theory and practices of teaching. It requires participants to complete 10 days (60 hours) of training.

D-1.2.2 Support for in-service training programmes

The MOE, or the local educational authorities normally pay the fees and costs for all kind of in-service training. Local offices of education have been engaged in establishing training centers to provide free in-service training. Individual schools also provide school based in-service training and the costs are supported from the school budget. There are also voluntary courses that are organised by various non-official groups, eg. open education society. In this case, the teachers themselves pay the fees.

D-1.2.3 Methods of improving teaching practice

In-service training courses are the most important occasions for the professional development of teachers. Also, voluntary workshops organised by small groups of teachers in the same local areas provide teachers for discussion and co-works. Attending the master courses in graduate school of education is another popular opportunity, in which case teachers themselves pay the fees.

D-1.2.4 Incentives for teachers to participate in in-service training

Teachers accumulate credits by participating in approved courses, and this is used for the promotion. There was a plan to relate the credits to the salary, but this is not yet implemented.

D-1.2.5 Strategies for In-Service Training of Teachers

After the revision of the curriculum, the MOE organises various in-service training programmes for teachers and teacher advisors from all parts of the nation. They then work as a trainers in their school or local areas. Also, in the usual training courses run either by the local educational authorities or by the individual school, the new trends of curriculum changes are covered.

The MOE also publishes and circulates various guide booklets for the changes, while educational magazines both public and private work as important vehicles to inform the changes of curriculum.

D-2. Resource Support

D-2.1 Textbooks

The publication and distribution of school textbooks have been administered by the MOE. The MOE's control over school textbooks standardises educational content, which results in uniform thinking. In addition, since textbooks have been regarded as the single most important curricular material in Korean schools, very few additional materials have been developed and provided. Accordingly, the Korean textbook policy has failed to satisfy diverse needs of individual students and communities.

Currently, textbooks are classified into three types. The first is the government-copyrighted textbooks, which includes nearly all the primary textbooks and those for Korean, Korean history and moral education at secondary level. Commercial textbooks authorised by the MOE are the second type, and this applies to the most textbooks used in secondary education. The third type, which is rare in use, is those approved by the MOE on the request of school principals and Superintendents of Municipal and Provincial Board of Education(MPBE).

The MOE revised the textbook publication policy in 1995, so that more diverse textbooks can be used in the classroom. It is proposed that, in the long term, free market system should be introduced to enable teachers to use variety of teaching materials.

D.2.2. Teaching/Learning Support Materials

Currently, besides the textbooks, teacher's guidebooks, audio tapes, video tapes, computer software, CD-ROMs are all available for schools. The MOE established a computer education development plan in 1988 in order to help students attain basic computer literacy, to support the application of computer-assisted instruction in school, and to use computer in school administration. Under this plan, the Educational Technology Research Center was established under the KEDI in 1988, which later developed into the National Multimedia Center for Education. The multimedia center performs the

following functions: to support the development of various multimedia software; to examine, purchase and demonstrate electronic learning materials; to translate printed learning materials into a digitized data-base; to locate and provide domestic and overseas information about education and training; to devise effective means for information infrastructure and the educational use of such media as satellite and cable TV; and to coordinate the televised-instruction projects between teachers and the authorities concerned. The goal of this center is to develop and incorporate all feasible multimedia instructional materials.

D.2.3 Development process of supplementary materials

Supplementary materials are developed by various institutes, which include the MOE, KEDI, and local educational authorities. Private companies also develop very large number of student workbooks and support materials, since there is no strict regulations on the publication of them. Nowadays, many teachers circulate the materials they developed through the internet.

D-2.4 Provision of Textbooks and Other Materials

All the primary students keep their own textbooks provided free of charge by the MOE. In the case of secondary school, parents pay for the textbooks that are provided at a low price.

D-3. Community Support

D.3.1 Extent of community support

In some schools, particularly in primary schools, parents are involved as voluntary helpers in the classroom instruction. They also support the extra-curricular and after school programmes as instructors.

The major national news papers also provide significant supports the curriculum implementation through organising special programmes, eg. Newspaper In Education (NIE) programme, Information Technology for Education programme, After school activity support group, etc. They often provide teachers free in-service training, and various information on their programmes.

D-4. Classroom Strategies

D-4.1 Strategies to introduce new teaching approaches

The most important approach to introduce teachers to new teaching strategies, is the in-service training. In the future, the use of distance learning programme for teachers will be more widely used for improving their teaching methods. The National Education Broadcasting System and Open University will take important roles in this project.

D-4.2 Issues and concerns about teaching methods

One of the major issues concerning the teaching methods in Korea is the introduction of open education approach at the primary school. It is argued that open education is different from traditional one in that it emphasises individualised instruction by increasing individual and small group activities and reducing direct instruction. Starting with two private primary schools in Seoul in 1986, the

number of schools adopting open education has increasing. At present, the MOE and many local educational authorities recommend this approach as a way to correct the traditional teaching practices. For example, local educational authorities are publishing teachers resource books and organizing in-service training sessions of open education theory and practice. However, there are also strong criticism and debates on whether the open education is the right direction for the development, although the MOE has a plan to spread this approach into the secondary levels.

D.5 School-based student assessment

D.5.1 Developments in Assessment

In most cases, school-based student assessment use paper and pencil tests, although performance based evaluation method is also used for eg. laboratory experiments in science, or for music, art and physical education. Recently, the MOE introduced a plan to increase the use of performance based assessment in both of the primary and secondary schools, but teachers are reluctant and pessimistic because of the large class size.

D.5.2 Main purposes of assessment at the school level.

The main purpose of assessment is to identify the progress rate of students. Although the use of assessment for the diagnostic purpose is emphasised in many occasions, it is not quite clear how many schools or teachers are using the assessment results for this purpose. In the near future, it is expected that student assessment results will be used for the placements of students according to the differentiated curriculum.

Student assessment results are also used for promotion into the next school level, eg. the middle school assessment results are the major criteria for selecting students for high schools, and the high school assessment results are used as an important data along with the public examination results for entering University.

D.5.3 Methods for reporting on students performance.

At the primary level, description of accomplishments is the most common methods nowadays. Grade rating system is still the most prevailing method at the secondary level, where most schools use a norm-referenced evaluation. Such a norm referenced evaluation is often criticised for causing too much competition among the students and reducing the co-operative learning experiences.

D.5.4 External Examinations

The only external examination system used in Korea is the one for the entrance examination for the University taken at the end of upper secondary education. In some provinces, similar examination exists for high school entrance, but they are now diminishing. Since the public examination for the University entrance is a very high-stake one, it causes the usual problem that way of teaching is determined by the test. This problem will be explained below(D.6).

D-6. Barriers and Constraints to Effective Curriculum Implementation

D-6.1 Barriers/Constraints to curriculum implementation

Efforts for curriculum reform cannot succeed if factors related to curriculum implementation are not changed simultaneously. For example, to enable all high school students a full range of choices for subjects, schools need to have teachers with range of specialized knowledge and skill that is as broad as the curriculum to be taught. They must have specialized teaching accommodations and equipment so that students can actively pursue studies that will allow them to try themselves out in all curriculum areas. It is in this context that the government propose such measures as encouraging candidates for teacher to take double or second majors, introducing rotating teacher system by which a teacher is employed by local educational authorities and teaches at several schools, giving surplus teachers training opportunity for a second qualification, etc.

The change of university entrance examination is another factor to be considered. At present, the test covers all areas of subject in a single test, but with such test type, it is impossible to allow students to choose subjects most suitable for their interests and abilities. A new subject-base test is now proposed to be considered by some scholars, but the way forward is not yet clear. Concern for the university entrance examination is especially high, since as a high-stake examination, it often determines what to be taught and even how it to be taught. It has been severely criticised that the present multiple choice type tests would distort the classroom instruction, narrowing the scope of teaching and learning only to the simple memorisation of facts, and hence constrain the normal implementation of the curriculum.

There are more factors that need to re-structured, which includes: the provision of sufficient facilities and resources, reducing the class size, developing quality-textbooks and changes of policy related to textbook publication, revision of teacher education curriculum and methods including in-service training, reorganization of local educational authorities and schools administrative structures, introducing school evaluation system for monitoring the quality and effectiveness of schooling, revision of students record keeping, etc. Curriculum reform obviously lies at the heart of all educational innovation; but without a holistic approach to the whole elements related to curriculum implementation, the intended changes could not be achieved.

One final point to be mentioned regarding to the barrier to curriculum implementation is that teachers tend to be reluctant or even resistant to the new changes of the curriculum. They do so partly because of their conservative nature, but more importantly, they conceive the rate and extent of curriculum innovation as too rapid and too wide for them to understand and follow. They also complain that the new reform proposals are simply unrealistic. Considering such a situation, more efforts are needed in the future to enhance teachers' understanding and commitment for the curriculum changes.

Section E: Curriculum Monitoring and Evaluation

E-1 Monitoring and Evaluation

Monitoring the curriculum implementation is taken usually at local level. Inspectors from the local educational authorities regularly visit individual schools and check whether the legal requirements of

the national curriculum frameworks, eg, minimum number of school days, provision of the subjects to be offered at each grade, time allocation for each subject, etc. are met.

At the national level, there is no official procedure or system of monitoring curriculum implementation. However, national research institute such as KEDI often conduct researches relating to the curriculum implementation and instruction.

More systematic monitoring system are being introduced in recent years. The MOE began in 1996 the evaluation of local education authorities, and the local education authorities also evaluate individual schools in their area. Although these evaluation covers the whole aspects of education, they are more focused on curriculum implementation. Also, in 1998, the MOE nominated 10 schools throughout the nation, including both primary and secondary, to conduct a pilot study on the procedures and methods of self-evaluation of school curriculum implementation. It is expected that such a monitoring system will be spread and more widely used in the near future.

E-2. Curriculum evaluation

E-2.1 Mechanisms for curriculum evaluation

Curriculum evaluation is mainly conducted at the national level in Korea, since the curriculum is still highly centralised. During the periodic revision of curriculum, evaluation research works are conducted as a part of basic researches. On the other hand, professional associations such as Korean Association for Curriculum Studies occasionally organises academic conferences on the current states of curriculum development, and the arguments are later reflected in the curriculum revision.

In the most recent curriculum evaluation project for the seventh revision of the national curriculum, three main methods were used. The first is the literature review, in which the current curriculum documents, various research articles and reports on the problems of the current curriculum, international comparative study results, other countries' curriculum documents, curriculum guidelines by local educational authorities, individual schools' curriculum policy documents, explanatory documents and in-service training materials, teacher training institutes' curriculum, textbooks and laws related to curriculum and teacher training were analysed. The second method used is gathering views on the validity of each subject content through open seminars and small conferences. Thirdly, interviews with teachers were used to collect data of their views on the problems of the current curriculum. Other methods often used include: survey through questionnaire to teachers, parents and students; school visits; student assessments on their academic achievement.

E-2.2 Use of the results

The results of the curriculum evaluation are mainly used for deciding the general directions of, and in some cases, more specific policies for the curriculum revision. Although it is not always possible to draw direct recommendations from the evaluation research results, and in some cases the research results indicate even conflicting implications, at least the major recommendations are more or less accommodated in the curriculum revision process.

E-3.1 Monitoring of Local curriculum

Local involvement in the curriculum design and development is very limited in Korea, as explained above(B-3). Thus there is no significant concern for the monitoring system of the local curriculum. However, in recent times, with the introduction of local educational authority evaluation by the MOE, local curriculum policies are now becoming subject to external evaluation.

E-4.1 Students assessments for curriculum monitoring

In Korea, there has been no such national assessment system for monitoring the effects of the curriculum. Although the National Institute for Educational Evaluation, which is now merged into the Korea Institute of Curriculum and Evaluation(KICE), had conducted national students achievement assessment projects with small samples for several years, the main purpose of this project was to monitor the progress of students achievements rather than to monitor the curriculum itself. Moreover, since the results were not open to public on the reason that this might cause too much competitions between schools and local educational authorities, the use of the results were very limited.

With the establishment of the new national institute, the KICE, it is planned that from 1999, periodic national assessments of student achievements for monitoring the curriculum will be administered. The subjects and grades for the assessments are shown below.

School level	Grades	Subjects
Primary	4th grade	Korean Language, Mathematics.
	6th grade	Korean Language, Mathematics, Science, Social Study
Lower secondary	9th grade	Korean Language, Mathematics, Science, Social Study, English communication skill, Use of information technology skill
Upper secondary	11th grade	Korean Language, Mathematics, Science, Social Study, English communication skill, Use of information technology skill

Korean Language, Mathematics, Science and Social Study will be assessed every second years (two subjects for each year), while English communication skill and Use of information technology skill will be assessed once a three years. Small samples of students between 0.5% and 1% of whole population will be involved in the test.

E-5.1 Research and curriculum development

Although many researches have been conducted by various institutes and individual scholars during the last decade on the impact of curriculum on the overall quality of education, it is hard to name a few research works most widely referred to. This is partly due to the fact that there was no 'official' research on this topic.

However, various researches on the impact of curriculum have shown some common concerns for the problems that need to be overcome. For example, it is often criticised that the system is

excessively centralized, enjoins conformity, and little scope for diversity or innovation. School curricula, though changing, are highly prescriptive, allow little scope for local interpretation. Teaching and learning relies far too much on memorization and recall of fragmented knowledge. The college entrance examination reflects and reinforces these problems.

One of the key weaknesses of Korean education, often mentioned in the research works, is that too much emphasis is given on the imparting and memorization of knowledge rather than creativity or critical thinking. School classrooms are far from being a place where every individual is treated as a creative being. Instead, they are still dominated by the traditional cramming method of teaching. Further, the multiple-choice types of test used in the university entrance examination have provided no incentive for learning through in-depth thinking. It is often criticized that although Korean students are heavily burdened with learning and often show high scores in international comparative tests, their academic ability tend to become lower compared to those of other countries as the school levels gets higher.

The reasons behind this are, among others: the pressure of the university entrance examinations, dependency of instruction on textbooks, large class size, and limited resources etc. Particularly, the first one needs special attention. The rapid growth in the number of students who wish to go on to higher education has made competition for university entrance extremely fierce. This has had great impact not only on the secondary education but also even on the primary education. Since the university entrance examination is yet largely based on multiple choice test, with an exception of a short essay writing, the daily practices in classroom tend to neglect fostering higher-order thinking skills. Moreover, preparation for examinations dominates the lives of Korean students, and even parents: most students have private lessons in the evening, up until 11:00 pm. The result is that students are overburdened with study, resulting again limiting the extent of their social time which will contribute to widening their intellectual experiences, while the parents are under enormous financial strain for the private tutoring expenses.

The curriculum reform policies explained above in this country report are the efforts to rectify these problems. Some significant improvements have been made with the revision of the curriculum, but still there remain many problems that need to be solved to meet the challenges of the new century.

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Sri Lanka

Jayanthi Gunasekara

A COMPARATIVE STUDY OF THE SCHOOL CURRICULUM SRI LANKA

INTRODUCTION

Sri Lanka is a pear-shaped island, surrounded by the Indian Ocean. The total area of the island is 65,610 square kilometers, measuring 435 kilometers from North to South and 225 kilometers from East to West.

The population of Sri Lanka is estimated at 18.3 million for 1996 with an annual growth rate of 1.4%. The density of the population is 292 per square kilometer. The population in the urban areas 21.5% of the total compared with the rural areas, having 78.5%.

This island is the homeland to a multi ethnic, multi religious society. The Sinhalese constitute the major ethnic group with a representation of 74%, while Sri Lankan Tamils and Indian Tamils account for 13% and 6% respectively. 7% of the total population are Moors. Buddhism is the religion of the majority accounting for 69%, while Hinduism, Christianity and Islam are followed by 15.5%, 7.6% and 7.5% of the population respectively.

As a low income developing country Sri Lanka had a per capita GNP of US\$ 753 in 1996. Starting the early 1980s the economy of Sri Lanka was opened to liberalized international trade and investment, largely dismantling the state controlled machinery. Between 1980-1991 the GDP growth averaged approximately 5% per annum except during the 1987-1989 period where the growth rate dropped to about 2% due to the civil unrest in the North-East part of the country and unfavourable weather conditions that prevailed during this period. The economy of Sri Lanka is expected to grow at over 5% as a result of continuing privatization programmes, infrastructure investment and export promotion. The economic activities of the country over the past two decades, has been market driven and export oriented. Investment in human capital has been a high priority in Sri Lanka for over five decades.

Past investments in education and health have contributed to the achievement of relatively good social indicators such as an adult literacy rate of 90.1%, Infant mortality rate of 16.5 per thousand, and life expectancy of 76 years for females and 72 years for males, comparing well with social indicators in countries at considerably higher levels of per capita income. The relatively long life expectancy of Sri Lankan also increases the potential economic returns to investment in education.

The general education system in Sri Lanka consists of three cycles; Primary Education (grades 1-5), Secondary Education (grades 6-11) and Collegiate Education (grades 12-13).

The minimum age for school admission is five years. The total number of schools for general education is 10,116 and the total pupil enrolment was around 4.1 million in 1996.

The system is made up of five different types of schools.

- National Schools, which handle the entire education cycle from grades 1-13, offer Science, Arts and Commerce programmes for the G.C.E. A/L Examination at grade 13 and are administered by the Central Ministry of Education and Higher Education (MEHE).
- Type 1AB schools, which are structured on the same lines as National Schools, but are administered by Provincial Authorities of Education (PAEs).
- Type 1C schools, which handle the education cycle from grades 1-13, but offer only Arts and Commerce programmes for the G.C.E. A/L Examination and are administered by PAEs.
- Type 2 schools, which cover grades 1-11, prepare students for the G.C.E. O/L Examination at grade 11 and are administered by PAEs.
- Type 3 schools, which cover grades 1-5 or grades 1-8 and are administered by PAEs.

National schools and Type 1AB schools are mostly located in prosperous urban areas. Type 1C schools are normally situated in poor urban and semi-urban areas. Type 2 and Type 3 schools are usually found in rural and remote areas.

The gross enrolment rate in primary education is high (101%), with a net enrolment of over 90%, and the provision of universal primary education is expected to be completed before the year 2000. Secondary enrolment (grades 6-11) had, in 1996 reached over 70%. Sri Lanka is in the unique position among developing countries, of having reached equitable female participation in education. Almost all girls complete primary education and most complete grade 11 (O level). Female participation at the collegiate and university levels equals that of males.

Sri Lanka has a devolved system of education administration. The country is divided into 8 provinces and each province is responsible for the administration of the schools located within its borders, except those designated National Schools which are administered by the Central Ministry of Education & Higher Education.

Year 1997 has been declared a year of Educational Reform and Restructure in Sri Lanka. Her Excellency the President of Sri Lanka has appointed a Task Force to effect overall change of the education system. New strategies are being developed to achieve national educational goals spelt out by the National Education Commission (NEC). Thirteen Technical Committees have been appointed by the Task Force to study and elaborate on the proposals in order to prepare an implementation plan to build up a new education system to suit the twenty first century.

The present reform proposals are broadly grouped under the following five main areas.

- Extending educational opportunity
- Improvement in quality of Education.
- Technical and practical skills development.
- Teacher Education.
- Management of education and resource provision.

The new educational reforms appear to have been conceptualized and developed with understanding of the emerging models of learning, teaching and assessment. In discussing the primary stage of education, the NEC document states that the child has to be attracted, settled, disciplined, focussed and inducted to systematic learning through a mix of play, activity and desk-work. The curriculum is to be competency- based rather than subject based. Training of teachers and introduction of competency tests at entry level and terminal level are envisaged. The need to design buildings, school gardens and the enhancement of library facilities and teaching-learning equipment has been taken into account.

At secondary level too, an integrated curriculum where learning through projects and practical work, establishment of activity rooms, school-based assessment and pupil portfolios are exciting new measures, some of which had been tried out earlier. Despite all these, it is mandatory to allow for space in the time-table to facilitate independent learning, for students to reflect on their own learning and map out their own learning strategies to enable them to escape from the day-long teacher instruction in schools and tutoring outside of schools.

Section A: Background Information

A-1. General Information

A-1.1 Size of Population

Year (1996)

Total	Annual population growth rate
18,315,000	1.4

A-1.2 Indicate the total number of children/youth in the following age groups, using the latest available data.

Year (1994 *)

Age Group	Males	Females	Total
0 - 4yrs	669,137	653,746	1,322,883
5 - 9yrs	747,347	724,198	1,471,545
10 - 14yrs	825,556	815,635	1,641,191
15 - 19yrs	739,683	738,673	1,478,356

- * Due to civil unrest in the North-East part of the country no complete census has been taken after 1981. The North-East province has not been included in the 1994 data.

A-1.3 Indicate the major ethnic and language groups in your country, as a percentage of total population.

Ethnic Group	%
Sinhalese	73.96
Sri Lanka Tamil	12.70
Moors	7.05
Indian Tamil	5.52
Malays	0.32
Burghers & Eurasians	0.26
Others	0.19

Language group	%
Sinhala	73.96
Tamil	25.27
Malay	0.32
English	0.26
Others	0.19

A-1.4 List the major religious groups in your country.

Religious Group	%
Buddhist	69.3
Hindu	15.5
Muslim	7.5
Christian	7.6
Others	0.1

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$US)

The total Education Budget for 1996 was US\$ 385.2 million.

Percentage of Education in GDP : 3%

Percentage of Education in the Government Budget : 9.6 %

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

The national/official Languages in Sri Lanka are Sinhala and Tamil.

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language(s) are taught and at what levels?

The School Curriculum is prepared in both Sinhala and Tamil Languages. In 1996 there were 3,177,013 Sinhala medium pupils in Sinhala medium schools and 940288 Tamil medium pupils in Tamil medium schools. From grade 1 up to grade 13, the language of instruction is either Sinhala or Tamil respectively. Syllabuses, Teachers Guides, Text Books and Resource Materials are available in both media.

A-2 The Educational System

A-2.1 Structure

Year (1996)

Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school **			Compulsory or Non-Compulsory
			Males	Females	Total	Males	Females	Total	
Pre-school *	3 years	3-5	NA	NA	NA	NA	NA	NA	Non-compulsory
Elementary or Primary	5 years	5'-9'	935334	874994	1810328	NA	NA	NA	Compulsory
Lower Secondary	6 years	10'-15'	1035057	1056184	2091241	NA	NA	NA	Compulsory
Upper Secondary	2 years	16'-17'	93307	122425	215732	NA	NA	NA	Non-compulsory

* The pre-school education is not administered by the Government in Sri Lanka. There are a number of pre-school education centres all over the island which are administered by private organizations. But no census data available in the private education sector.

** Due to inavailability of the relevant age group population data for 1996 percentage of relevant age group attending school could not be calculated.

A-2.2 Class size

Level	Average class size
Elementary/Primary	28
Lower Secondary	30
Upper Secondary	14

A-2.3 Teachers

Level	Number of Classroom Teachers			Teacher:Pupil ratio
	Males	Females	Total	
Elementary/Primary	10219	53336	63555	1 : 28
Lower Secondary	31522	58305	89827	1 : 23
Upper Secondary	6644	8168	14812	1 : 15

A-2.4 Number of Schools

Level		Government	Private	Other-please specify	Total
Elementary/Primary		4037	* NA	-	4037
Lower Secondary		3666	* NA	-	3666
Upper Secondary	General	2413	* NA	-	2413
	- Vocational	* NA	* NA	-	* NA
	- Specialized	* NA	* NA	-	* NA
	- Others (Please specify)	-	-	-	-
	- Total	10116	* NA	-	10116

* No census data available in private schools, vocational or specialized schools in Sri Lanka.

A-2.5 Specific School Information:

	Primary	Secondary	
		Lower	Upper
Number of school days per year	210	210	210
Division of school year e.g. quarter, semester	term	term	term
Number of instruction days per week	05	05	05
Teachers' average number of class contact hours per week	20 hours	26 hours 40 minutes	26 hours 40 minutes
Time duration per teaching period (in minutes)	30 minutes	40 minutes	40 minutes

Section B: Curriculum Policies

B-1. Background

B-1.1 In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.

The social, economic, political and cultural contexts of Sri Lanka is reflected in the curriculum policies such as;

- Implementation of common curricula and languages of instruction to be the mother tongue to give equal opportunity to all ethnic groups.
- Ensure gender equality by providing education on all aspects.
- The integration of primary stage curriculum and some of the integrated subjects included in secondary stage curriculum.
- Provide facilities for children to develop skills appropriate to living in the multi-cultural and multi-religious society.
- The curriculum in the secondary stage emphasises practical activities to introduce world of work. Meaningful technological skills are introduced to contribute the country's economy in the future.

B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

The text below contains in bold letters the Overall National Goals. Beneath each overall National Goal, in normal type, is a set of Educationally Relevant Goals which are derived from it.

The achievement of a functioning sense of National Cohesion, National Integrity and National Unity.

- Understand and valuing the concept of the Sri Lankan nation, in the context of the global community.
- Inculcation of a deep feeling of patriotism and commitment to the service of the nation and its upliftment.
- Appreciation of the contribution made by the cultural traditions of every ethnic group and religion to the enrichment of the Sri Lankan nation.
- Sensitivity to the role of language use and cultural appreciation in sustaining national cohesion.

The establishment of a pervasive pattern of Social Justice and active elimination of inequities.

- Awareness of and sensitivity to the significance of social justice and active elimination of inequities.
- Sense of personal responsibility and accountability.
- Ability of rights and duties of self and others; and a sense of fair-play.

The evolution of a Sustainable Pattern of living - A sustainable Life Style.

- Awareness of and sensitivity to the assimilation of wholesome values in life and work.
- Awareness of and sensitivity to the importance of the evolution of a sustainable life style for the future.
- Having and attitude of continuous improvement with the interests of both self and others in view.
- Use of leisure, relaxation, recreation and rest which are conducive to mental and physical health.
- Awareness and appreciation of ecological balances.
- Willingness and ability to contribute constructively to environmental conservation

Seeking a livelihood and work opportunities that are, at one and the same time, productive and give avenues of self - fulfilment.

- Awareness of patterns of livelihood and work opportunities that are productive and self-fulfilling.
- Ability to create wealth for self and family through honest and productive efforts
- Establishment of satisfying and mutually supportive relationships.
- Conduct in life and work that does not induce undue physical and mental stress.
- Ability to match needs and wants to available resources with contentment in a sustainable life style.
- Ability to save and invest wisely.
- Ability to map out a feasible strategy for personal development.
- Sense of quality in living and working.

Participation in human resource development that will support socio-economic growth of the country.

- Awareness of salient aspects of national development and the mode of participation in them.
- Role of a motivated, competent and adaptable workforce in national enterprises.
- Significance of effective management through the identification of managerial, supervisory and specialist personnel in diverse contexts of work.
- Ability to select and use guidelines and self-study schemes in national and other languages, as circumstances demand.
- Awareness of and ability to use formal and informal channels and modes for upgrading personnel.

Involvement in nation building activities: learning to care.

- The evolution of a deep and abiding sense of concern for one another.
- Understanding and appreciation of one's culture those of others.
- Awareness and informed respect for all religions and belief systems.
- Awareness of others view points and needs.
- Ability to function in a spirit of co-operation, tolerance and informed sensitive compromise.
- Awareness and appreciation of interests - self and others- and functions while recognising human limitations.
- Awareness modes of realising consensus and mutual agreement, avoiding arbitrary and unilateral actions.
- Awareness of the role of consultation, expression of opinion and constructive criticism with responsibility and ability to promote such participatory action.
- Capacity to work intensively, with perseverance and with attention to relevant detail, as situations demand.
- Ability to nurture among all participants deep and abiding commitment and concern for one another.

Cultivation of an element of adaptability to change - learn to learn and adapt, developing competence to guide change.

- Awareness of an sensitivity to rapid change, with the ability to anticipate several alternatives strategies.
- Appreciation of the critical need to be prepared for disasters - natural and man made - the unforeseen events likely to be faced by individuals, groups and national institutions; and the institution of anticipatory and participatory actions.
- Resourcefulness to initiate fresh constructive action, desisting from fruitless brooding over losses and calamities.
- Exploration of new possibilities, alternatives and opportunities, taking initiatives to learn a new, discarding the obsolete and fruitless activities.
- Capacity to evolve and put in place survival and life support systems.

Coping with the complex and the unforeseen; and achieve a sense of security and stability.

- Awareness of and the appreciation of a complex, uncertain and crowded world, likely to be even more so in the foreseeable future.
- Evolution of a dynamic approach to security and stability, putting in place precautions, safeguards anticipating risks, hazards, failures, errors in planning, programming and judgement.
- Awareness of the need for information in the above contests, sensitive to the critical elements of information that requires to be up-dated and at hand.
- Awareness of the relevance of mental and physical health, especially in relation to the young, maintaining good health, developing resistance to diseases, infections, stresses and trauma.
- Awareness of an the capacity to manage waste - of diverse types - and other unwanted but inevitable outcomes.
- Awareness that malpractices and grievances will appear; capacity to take prompt corrective action or action to redress, as appropriate.
- Awareness of laws, due processes, legal safeguards, etc., coupled with a competence to institute efficient and effective action.
- Accessibility, availability and affordability of means of prompt and impartial judicial action and, as needed, appeals procedures.

Securing an honourable place in the international community

- Awareness of and an appreciation of the community of nations and place of one's country in the international domain, as seen from diverse points of view-power, economy, trade and commerce, etc.
- Sensitivity to human life and human rights.
- The appreciation of viability and vibrancy of institutions of democracy.
- Awareness and appreciation of the variety and richness of social and cultural lives of diverse groups.
- Recognition of the significance of international co-operation and also competition.
- Achievement of a high quality of life - as seen from multiple points of view.
- Awareness and appreciation of national policies; their relevance and limitations.
- Awareness and appreciation of the quality of materials and services that originate in Sri Lanka.
- Maintenance of a high level of integrity, competence and intellectual stature of international participants from the country - managers, technocrats, operators, diplomats, politicians, other representatives, leaders from diverse fields of religion, literature, the arts, science, education, industry, trade and commerce.

B-1.3 What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that given direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities,, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

National regulations are exists to complete control in all aspects of student outcomes and curriculum implementation including time allocations, subjects and assessment.

B-2 Curriculum change

B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.

Looking back into the history of education in Sri Lanka, it is obvious that curriculum changes have been introduced either consequent to the change of a government or the change of a minister incharge of education. The present Government came into power in 1994 and the previous Government had been in power for a period of 17 years. Since the same Government had been in power no major changes had been introduced in the curriculum from 1985 upto 1994.

When the present Government came into power, it introduced only minor changes in 1996 without introducing any major ad-hoc changes. But it allowed the commission appointed by the previous Government to carry out an in-depth study and formulate educational policies to suit the 21st century, to continue its work. According to its proposals major changes are introduced from the current year (ie. 1998).

From 1985 upto 1996 no changes had been implemented in the secondary curriculum. A few changes were introduced in the collegiate curriculum (yrs 12-13) in the year 1996. The following were the changes:

Mathematics : - New topics were introduced in the Pure Mathematics and Applied Mathematics syllabi at Advanced Level.

- A new subject called "Mathematics" was introduced for non-mathematics students (ie. - those who follow Bio-Science and Arts/Commerce programmes) also at Advanced Level.

The ability level needed to learn this subject is comparatively lower than that for Pure Mathematics and Applied Mathematics.

In the curriculum for the arts stream, major changes were introduced in the subject of Geography. The subject Geography had 3 components. Students offering this subject had to sit three papers of 3 hours each at their GCE Advanced Level's.

Geography I	-	Practical work
Geography II	-	Human Geography & Physical Geography
Geography III	-	Developmental Geography

But in the revised curriculum introduced in 1996 these three components were changed as follows.

Geography I	-	Practical work
Geography II	-	Environmental Geography
Geography III	-	Human Geography

Besides these major changes in Geography, minor changes were made in the following subjects; introducing certain new topics.

History
Political Science
Logic & Scientific Methods
Greek Civilisation

The syllabus in G.C.E. (A/L) Tamil Language was revised. Until 1996 only six prescribed texts were taught. But according to the revised syllabus a combination of selected topics taken from literatures from the 'sangha' period upto the present were recommended as texts. Also, Grammar in Tamil that had been taught traditionally was replaced by the linguistic method. And greater importance was given to Sri Lankan history of literature.

A subject called 'Business Statistics' was introduced in the curriculum of the commerce stream.

These immediate changes were made considering the needs of the country and international standards. Further, there were effected only as a temporary measure until a new curriculum was designed in accordance with the educational reforms formulated by the National Education Commission.

The Primary curriculum was changed commencing from Year 1 in 1993 and proceeding to year 5 in 1997. Competency based education replaced teacher oriented education. Aesthetic Education and Physical Education were split up into two separate subjects. Though teachers were requested to follow the integrated syllabus they set about teaching the First Language and Mathematics as separate subjects. Twenty new themes were introduced in Environmental Studies to suit current trends. Activity- based Beginning Science was introduced from year 3. The major change that took place in the primary cycle was the introduction of formal evaluation procedures at this level.

B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for curriculum development in the next five to ten years, such as: globalisation; information technology; communication; and national/cultural identity?

Collegiate level Curriculum

Major changes in the collegiate level curriculum were introduced in 1998. G.C.E (A/L) had been mainly a selection examination for University admission. Considering the large number of students who sit this examination and fail to gain admission to Universities, the curriculum at this level had been designed to meet the needs of this large group to prepare them for a variety of further educational and work opportunities.

According to the Technological Stream had been introduced and flexibility made available in the choice of subjects across different streams.

The number of subjects that a student had to offer had been reduced from 4 to 3 in order to reduce the tension and the strain of an overloaded curriculum.

For the purpose of University admissions, in addition to performance at C.C.E.(A/L) an Aptitude Test has been introduced to test their suitability for University Education.

Biology has been introduced as a subject in place of Botany and Zoology. Higher Mathematics and Combined Mathematics has been introduced in place of Pure Mathematics and Applied Mathematics.

Secondary Level Curriculum

Secondary stage of education has been divided into two sub stages namely junior secondary and senior secondary. Earlier the Senior Secondary Education programme covered a period of 3 years. But according to the new reforms it will cover only 2 years, namely, Grade 10 and Grade 11. A new curriculum will be introduced at this level in the years 2000 and 2001, respectively. According to the new curriculum the senior secondary education programme will have 7 core subjects and 3 optional subjects.

The core subjects are:

- Ethics & Philosophy
- First Language
- English
- Mathematics
- Science & Technology
- Social Studies & History
- Aesthetic Studies (Literature will be an optional subject under the group of Aesthetic subjects).

Students can select upto 3 optional subjects, depending on their aptitude and interest .

Optional subjects are:

Sinhala / Tamil as a Second Language
History
Geography
Health & Physical Education
Literature (Sinhala / Tamil / English)
Modern or Classical Languages
Technical Subjects

The junior secondary education programme will cover a period of 4 years, viz. grade 6, grade 7, grade 8 and grade 9. Grade 6 will be the bridging year between the primary and the secondary stage Pupils who have studied the integrated curriculum in the primary cycle will have to study a subject - based curriculum at this stage. There will be a common curriculum comprising 10 subjects. These 10 subjects are indicated in C.1.3.

Primary Level Curriculum

The primary cycle is divided into 3 key stages viz.

Key Stage I	-	Grades 1 and 2
Key Stage II	-	Grades 3 and 4
Key Stage III	-	Grade 5

The curriculum will be competency-based rather than subject-based. The basic competencies will form a comprehensive set including competencies in communication use of words, numbers and pictorial forms, competencies relating to ethics and religion, competencies relating to the environment which include natural, social and artificial aspects, competencies relating to enjoyment and use of leisure and competencies in learning. This will be presented to the child in a manner that is conducive to the balanced physical and mental development of the child.

B-3 Curriculum development processes

B-3.1 Is your country's system of curriculum development centralised, partially centralised or decentralised? Please explain your answer.

Sri Lanka has a centralised system of curriculum development handled by the National Institute of Education (NIE).

B-3.2 Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-government agencies, private companies, etc.).

The NIE established by an Act of Parliament in 1985 has the authority for school and teacher education curriculum development as its main function, in terms of the Act, regarding content and methodology. The 13th amendment to the constitution further confirmed this status through the requirement that Provincial Councils should obtain NIE approval for any changes or modifications to the school curriculum. The Central Government provides grants to meet the expenditure incurred in the development of school curricula. Donor agencies like SIDA, UNICEF also provide funds to develop school curricula. Not only this but loan schemes like Asian Development Bank, World Bank are also offered. Educational personnel working in the Provincial Government contribute expertise as resource persons when writing and editing curricula. In the piloting process, curriculum researchers, teachers, parents and students contribute their critical opinions.

B-3.3 In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc.) accommodated in the decision making processes? Please give some recent specific examples.

The national education policy has been formulated by the National Education Commission which was appointed by the President by an Act of Parliament. Before they formulated the policy a large number of people including university personnel, professionals, principals, teachers, parents and students were interviewed and their public views were considered. Some of the changes proposed are;

- Move towards a competence based curriculum from an examination oriented, content based curriculum
- Reduce the heavy strain on students by reducing the present 4 mandatory subjects at the A/L's to 3 subjects.
- Promote English education.
- Provide opportunities for children to acquire information and skills related to life and the world of work.

B-3.4 In what way does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.

Implement a common curriculum throughout the country and have students one common examination.

Medium of instruction is in ethnic languages, either Sinhala or Tamil. Sinhala language is offered to Tamil students and Tamil language is offered to Sinhala students as a second language. English language is the compulsory foreign language.

The primary school curriculum is an integrated one. It develops discipline, imbibing of culture and the balanced mental and physical growth of every child.

The curriculum provides facilities for children to develop variety of attributes and skills, including self-reliance, social skills, especially the ability to work in groups, and an outlook that is conducive to living in a multi-cultural and multi-religious society.

B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.

As there is a common curriculum implemented throughout the country no particular provision is made for characteristics like gender, socio-economic background and ethnicity. But all school curricula are adapted to suit physically disabled students.

Section C: Curriculum Design

C-1 Curriculum Organization

C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

Earlier, the basic approach followed to curriculum design was a content/topic based one. The curriculum design is now moved towards the competency-based approach. As the previous curriculum was mostly exam oriented, the content/topic based approach had to be followed when designing curriculum. The proposed new curriculum has been prepared according to following five basic competencies introduced by the National Education Commission viz.

- Competencies in communication : Literacy, Numeracy and Graphics.
- Competencies relating to the environment :Social, Biological and Physical.
- Competencies relating to Ethics and Religion.
- Competencies in play and the use of leisure.
- Competencies relating to 'Learn to Learn'.

At the primary stage, the child will be initiated to the above five basic competencies. The secondary curriculum will have emphasis placed on the strengthening and consolidation of the five basic competencies above.

C-1.2 Please describe whether your curriculum is mainly designed to:

The present curriculum is mainly designed to implemented by teachers in their entirety. Syllabuses, Teachers Guides and Text Books are prepared centrally and students have to sit a common exam at the senior secondary level. There is a certain amount of freedom in that teachers can use any teaching methodology and approach in teaching the curriculum.

C-1.3 Basic structure of the current and/or future school curriculum

	Subject	Grade / Year								
		1	2	3	4	5	6	7	8	9
Compulsory	First Language	180	180	180	180	180	120	120	120	120
	English	-	-	108	108	126	120	120	120	120
	Second National Language	-	-	36	36	36	48	48	48	48
	Mathematics	126	126	180	180	180	120	144	144	144
	Environmental Studies	216	216	216	216	270	216	-	-	-
	Religion	45	45	72	72	72	72	48	48	48
	Health & Physical Ed.	-	-	-	-	-	96	72	72	72
	Aesthetic Subjects	-	-	-	-	-	96	72	72	72
	Science & Technology	-	-	-	-	-	-	144	144	144
	Social Studies & History	-	-	-	-	-	-	120	120	120
	Life competencies / Practical Skills	-	-	-	-	-	72	72	72	72
Optional	Optional curriculum	-	-	-	-	18	-	-	-	-
Co-curricula	Co-curriculum	18	18	18	18	18	-	-	-	-
	Total	585	585	810	810	900	960	960	960	960

C-1.4 Integration

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

Curriculum integration is still a major issue in our country. Especially in the primary stage, the curriculum is an integrated one. It is spread out through grades 1-5. In the junior secondary level, there is a subject called Environment Studies at year 6. Environmental studies is an integration of Social Studies and Science. At grades 7-11 there is another integrated subject; Science and Technology.

C-1.5 Specific curriculum areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated areas, at what level of schooling they are taught, etc.).

Themes / Areas	How your curriculum deals with the theme/area	Level of Schooling
Values/international understanding (e.g. moral/ethical issues etc.)	as an integrated area	1-11
education for the world of work.	as an integrated area	1-13
foreign languages	as a separate subject area	10-13
computer/information technology	as an integrated area	12-13
health education (e.g. diet, drugs, HIV/Aids)	as a separate subject area	1-11
environment education	as an integrated area	1-13

C-1.6.1 Curriculum Coverage

C-1.6.1 What are the issues in your country with regard to pressure on the coverage of the curriculum?

No major issues can be seen in Sri Lankan context. But sometimes the personal interests of policy makers has influenced the inclusion of new subject areas in the curriculum. But in general, it is understood in our society that, over crowding of subjects in curricula poses many disadvantages to the system.

C-1.6.2 What steps, if any, are being taken to address these concerns?

If there is any need to add new subject areas, some old out-dated sections can be removed and a balance brought about in the curriculum.

Section D: Curriculum Implementation

D-1 Teacher Professional Development

D-1.1 Pre-service teacher development.

D-1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

Teachers are recruited in two ways. Due to the rapid expansion of student enrolment many new teachers have had to be recruited to meet the escalating demand for primary and secondary education. Hence, there is no entry requirement, like pre-service teacher education qualifications, for one to enter the teaching profession. The other avenue of recruitment the instance of those who have followed a three year diploma in teaching course at Colleges of Education where these diplomates are recruited to the teaching force.

A policy decision has been taken that every teacher should receive a programme of initial teacher education of two years plus one year internship prior to entering the teaching force.

D-1.1.2 Is there a prescribed national curriculum / guidelines/framework for pre-service teacher education in your country?

The main pre-service teacher education centres are Colleges of Education. The Colleges of Education have a prescribed national curriculum for the Diploma in Teaching.

D-1.1.3 What is your country's programme for pre-service teacher development?

Level of Teacher	Title/Length of Programme	Type of Institution	Minimum entry requirement
Primary	Diploma in Teaching/3 years	Colleges of Education	G.C.E. (A/L)
Lower Secondary	Diploma in Teaching/3 years	Colleges of Education	G.C.E. (A/L)
Upper Secondary	B.Ed. / 4 years	Universities *	G.C.E. (A/L)

* discontinued after 1982

D-1.1.4 Pre-service teacher education programmes usually include components of education foundations (e.g. sociology of education, history of education); general methods courses (e.g. educational technology, classroom management, assessment); subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practicum. Please describe the general component of the pre-service teacher education

The pre-service teacher education programme in the Colleges of Education comprise three main components.

General area (Compulsory)
Professional area (Compulsory)
Specialization area (Optional)

The general component of the pre-service teacher education programme includes the following subjects.

First Language (mother tongue)
Second Language I (English)
Second Language II (Sinhala / Tamil)
Sri Lankan society
Health and personal hygiene
Aesthetics
Library and Information Studies
Foundation course
Physical Education and sports.

D-1.1.5 Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education? Please give specific examples to illustrate your answer.

The National Institute of Education is responsible for the revision and preparation of all curricula for the national schools system. Not only this, the NIE is also responsible for the revision and preparation of the curricula of the National Colleges of Education and all teacher education institutes. Once the school curricula changes, all the teacher education curricula are also revised accordingly. Hence pre-service teacher education programmes in our country always keep up with the changes in the school curriculum and other areas of change in education.

D-1.2 In-service teacher development programmes

- D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?**

Earlier, the in-service professional development of teachers in Sri Lanka was on a voluntary basis. Now, in-service development is compulsory and teachers have to cover at least 300 hours of in-service training to be entitled to their next promotion in the teaching service.

- D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?**

Government pay a subsistence allowance to teachers when they participate in an in-service programme.

- D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?**

In Sri Lanka there are a number of means that teachers can use to improve their knowledge and teaching skills. NIE offers a number of full time and part time courses like M.Ed., PGDE, B.Ed., Diploma in Ed. to enhance their knowledge and professional competencies. The Distance Teacher Education Department of the NIE offers distance mode certificate courses. The other in-service training method is through master teachers. The training of trainers and master teachers is one of the major functions of the NIE. After receiving training, trainers and MTT conduct training programmes in the provinces. Teachers can use the NIE library to enhance their knowledge and skills.

Teacher's colleges provide training programmes on a full-time basis. Graduate, Post-graduate teacher education sub-system of the Universities provide B.Ed. Diploma, Masters and Doctoral courses.

- D-1.2.4 Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?**

The motivating factors and incentives for participating in in-service programmes are promotion, salary increase, qualifications improvement, increased knowledge and teaching skills, sharing of ideas, personal enrichment, updating of knowledge etc.

D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/ voluntary in-service training provided; or teacher guides to the curriculum published etc.

Following any change of curricula, teachers guides will be prepared according to the revised syllabus. Compulsory in-service training will be provided to master teachers by the NIE. Master teachers will conduct in-service training programmes for the teachers in the provinces.

D-2 Resource Support

D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:

In the present context the government directly sponsors the writing, production and distribution of text books. But there is a proposal in place to leave the choice of text books entirely to schools and teachers.

D-2.2 What other teaching/learning support materials are available for schools (eg. teacher guides, video tapes, computer software, CD-ROMs etc)?

The teaching-learning support materials available to schools in Sri Lanka are;

- Teachers' guides
- Audio-video tapes
- Resource materials
- Work books
- Teaching aids

D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise etc)

The National Institute of Education provides supplementary materials to the system. Some materials can be used by teachers and some of them can be used by students sometimes by both. Private writers also provide supplementary materials.

- D-2.4** **How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.**

Text books are freely available. The government provides free text books to each and every child in the primary and secondary stages of education. Supplementary reading materials are available in the open market.

D-3 Community Support

- D-3.1** **In your country to what extent are members of the community (for example, parents, community leaders, business people, NGO's, the religious community etc) supporting curriculum implementation? Please give specific examples.**

In each school there is a School Development Committee which comprise teachers, parents, past pupils and community leaders. They support all matters leading to the development of the school. Most of the committees support the development of the physical and infrastructural facilities in the schools. Sometimes there are donations by NGO's and business establishments for the development of schools.

D-4 Classroom Strategies

- D-4.1** **What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?**

The new teaching methods/approaches are introduced to teachers at in-service seminars. The suggested teaching methodologies are included in the teachers' guides also.

- D-4.2** **What are the major issues and concerns about teaching methods in your country?**

The major issues and concerns are creativity, activity oriented, child centred learning and learn to learn.

But there are limitations to the use of new methodologies as most of the schools have poor facilities. Only 3% of GDP is allocated for education.

D-5 School-based Student Assessment

- D-5.1** **Data is collected to assess students' performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc.), and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any**

emerging issues in your country regarding methods of student assessment with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

School Based Assessment is introduced in grade 6 from 1998. In 1999 the programme is to be introduced in grades 7,8, and 9. Data to assess performance of students is collected through short paper pencil tests, practical work, observations and assignments. The method of Portfolio Assessment is not yet introduced. Learning through Projects is to be introduced in future. School Based Assessment Gratings is to be considered when awarding certificates at grade 9 and grade 11.

D-5.2 There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?

Main purposes are to

- improve learning
- improve teaching
- improve assessment practices to suit the quality improvement of teaching and learning.
- shift from evaluation culture to assessment culture.

D-5.3 Performance can be reported as a percentage rating (e.g. 75%, 80%, etc), grade rating: (e.g. A,B,C, etc.) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

Gratings at School Based Assessment programme are divided as -

81% - 100%	-	Mastering
61% - 80%	-	Near Mastering
00% - 60%	-	Non Mastering

Following Recording and Reporting systems are used :

- Progress Record
- Student Profile
- Polargram
- Subject Based Report

D-5.4 Does your country have any external examination system? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (eg. how it might influence the aims/goals of the planned curriculum).

Yes - Grade 5 - Scholarship Exam
Grade 11 - G.C.E. (Ordinary Level) Exam
Grade 13 - (Advanced Level) Exam

It is proposed to have an examination at grade 9 from the year 2000 AD.

D-6 Barriers and Constraints to Effective Curriculum Implementation

D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

Some constraints such as teacher availability, teacher qualifications, teacher's knowledge, skills and attitudes, large class sizes, poor infrastructural facilities have been identified as barriers to effective curriculum implementation.

Although there is an adequate teaching force in Sri Lanka, One third of this number is unqualified. These untrained teachers are not evenly distributed among the provinces, but are concentrated in the more backward areas. The lack of experience in these teachers leads to poor performance in students. In the pupil -teacher ratio is quite high in Sri Lanka. But most of the teachers are concentrated in urban areas rather than spread over rural areas. Not only this, the differences in the quality of infrastructure facilities between urban and rural schools are a striking feature in Sri Lanka. Hence the variations in educational inputs has reduced the effectiveness of the curriculum implementation. Normally the National Schools and IAB schools are overcrowded with 50-60 students in a class. This is also another obstacle. Some of the principals and teachers in the systems are demotivated. Their attitudes also have an adverse effect on the proper implementation of the curriculum.

Section E : Curriculum Monitoring and Evaluation

E-1 Monitoring and Evaluation

E.1.1 What processes are used to monitor curriculum implementation in your country?

In the recent past the process of monitoring and evaluation of curricula was not adequate. The new curricula which was introduced into the school system by 1998 will be monitored in a methodical manner. Within the NIE there is a Curriculum Process Coordinating and Monitoring unit, which is responsible for ensuring that the plans, priorities and strategies are actually implemented on schedule by the various curriculum departments. For the implementation of these curricula in the schools both NIE and MEHE will set up mechanisms for local, on site assessment and feedback.

E-2 Curriculum Evaluation

E-2.1 Please describe the mechanisms/major tools used in your country for curriculum evaluation?

So far the method adopted for curriculum evaluation has conducted pilot studies in a sample of schools and made modifications revisions according to the findings. For evaluating the new curricula a diagnostic testing measure will be designed, tested and introduced to measure the effectiveness of new curricula both in teacher performance and student achievement. Impact evaluation studies on student performance and attitudes and on teacher perception of the usefulness of the concepts, content and material will be carried out.

E-2.2 How are the results of the national curriculum evaluation used in your country? For example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.

The results of national curriculum evaluation are used in the improvement of curricula and the quality of teaching-learning.

E-3 Monitoring of Local Curriculum

E-3.1 In a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?

Not applicable

E-4 Student Assessment for Curriculum Monitoring

E-4.1 What types of assessment are used to evaluation the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.

There is no regular method used for this purpose. A diagnostic testing method will be designed to measure the impact of new curricula on student achievement.

E-5 Research and Curriculum Development

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

- * Ginige, I.L. (1993) - Successful Co-curriculum Study Project No. 1: Agruculture Project.
- * Ginige, I.L. (1994) - Successful Co-curricular Study Project No. 2 : Value Development Project.

- * Jayasena, Asoka; Bandara, P.K.; Weerasinghe, Asoka (1989) - Case Studies of successful School practices.
- * Kodituwakku Godwin (1991) - An Evaluation of Upper Primary Mathematics Text Books.
- * De Silva N.M.R. (1991) - A Research Study on the Preparation of Usage of Primary Text Books in Sri Lanka.
- * Divaratne. K.D.W.M. (1991) - Are Teaching Aids and Instruments used Sufficiently and Effectively when Teaching Mother Tongue (Sinhala) in Sri Lankan schools.
- * De Silva, N.S.R. (1990) - Study of Students' View on G.C.E. (A/L) Botany syllabus.

Findings

- Formative assessment, rather than summative assessment, is more useful for effective teaching- learning process.
- Teacher oriented education had failed to develop pupils in their fields of interests. Hence, competency based education is introduced.
- Exam oriented teaching had given pupils unnecessary burden and strain. This is to be replaced by school based assessment.
- The present curriculum had failed to develop skills and attitudes in students. Therefore, it is proposed to develop skills by organising more activities. Project based learning also has been recommended.

Section F : Further Comments

After Sri Lanka gained its independence in 1948, the initial policies were designed by the Sri Lankan Governments to relive the most serious inconsistencies in the existing system through a series of educational reforms. National policy objectives were directed at the complete eradication of illiteracy and the assurance to all persons of the right to universal and equal access to education at all levels. Some of the 'equity consideration taken were,

- Free education from kindergarden to the University level.
- The medium of instruction to be the mother tongue.
- All assisted schools to come under state control.
- Provision of free text books, free mid day meals and free school uniforms.

- Provision of scholarships; free board and lodging.
- Subsidized transport facilities.

Although all these national policies resulted in a significant increase in pupil participation it was realised that the huge expansion in education had led to some problems in the system. The quality of education was neglected. Questions arose about the relevance of education to the labour market as there was an imbalance between the demands of the labour market and education. The school curriculum was dominated by an emphasis on examinations. Decision making, authority and control of education was extremely centralized. As, a result, administration became highly bureaucratic and dysfunctional. These weaknesses have severely affected the 'efficiency' of the system.

Recognising these shortcomings, the National Education Commission was entrusted with the task of advising the President on the formulation of a National Polity after an in-depth study of the existing system in the light of current educational developments.

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Thailand

Payungsak Jantrasurin

Introduction

This paper was preparing and presenting when the new proposed national curriculum for 12-year-basic education has been progressing towards its way of developing. Situations and statistics shown are then based on the 1990 revised edition of the 1978 primary and secondary school curricula which will be replaced in the academic year 2000 by the new curriculum. Nevertheless analysis, discussion, and responses in the other sections done under new ideas applied for the new curriculum in order that future trends in educational system would be better understood.

Section A: Background Information

The background information of Thailand presented here includes general information of population, religion, language and education.

At present, the number of population is 60,816,227 million, 19,182,514 million of which are in the 0-19 years age group. The increasing rate of population is 1.16 %. Although the great majority of the populations (96.5 %) are Thai, the country has a number of minority groups: Chinese (2.61 %) and others (0.89 %). The languages used in Thailand are Thai (99.61 %), Chinese (0.36 %) and others (0.03 %) . (see Table 1.1 - 1.3)

Buddhism, the national religion is the professed faith of 92.12 percent of the population. Islam (5.27%), Christianity (1.34%), Hindu and Sikh (0.03%) and other (1.24%) are embraced by rest of the people. (see Table 1.4)

Government funding has been the main source of financial resources for educational management. The Gross National Products (GNP) in the fiscal year 1996 is 4,475,330 million bath or 179,013.2 million dollars. The total budget allocated for education is 167,560.4million bath or 6,702.416 million dollars (3.74 percent of the GrossNational Products).

The official national language spoken by the Thai population is Thai.

The educational system according to the 1990 revised National Curriculum is divided into 4 levels, comprising three years of pre-primary education for children aged 3-5 years, six years of primary education for children ages 6-11 years, three years of lower secondary education for students aged 12-14 years and three years of upper secondary education for students aged 15-17 years.

The numbers of students at the pre-primary, primary, lower secondary and upper secondary levels are 2,334,247, 5,449,233, 2,462,556 , and 1,634,775 respectively. The average number of classsize in primary level, lower secondary level and upper secondary level are 21.3, 41 and 37. The number of classroom teachers in primary level and secondary level are 354,415 and 119,022.

There are 35,195 primary schools, 9,030 lower secondary schools and 2,580 upper secondary schools.

There are 200 days of learning periods in each academic year which is divided into 2 semesters. The teaching periods of primary school teachers are 21 hours per week, whereas the teaching periods of lower and upper secondary school teachers are 18 hours per week (See table 2.1- 2.5).

Section A-1 Background information

A-1.1 Size of population. (year 1997)

Total	Annual population growth rate
60,816,227	1.16

Source: National Statistical Office, Office of the Prime Minister

A-1.2 The total number of children / youth. (year 1997)

Age group	Male	Female	Total
0 - 4 yrs.	2,308,930	2,180,351	4,489,281
5 - 9 yrs.	2,382,514	2,257,871	4,640,385
10 - 14 yrs.	2,415,053	2,309,054	4,724,107
15 - 19 yrs.	2,712,749	2,615,992	5,328,741
Total	9,819,246	9,363,268	19,182,514

Source: National Statistical Office, Office of the Prime Minister

A-1.3 The major ethnic and language groups as a percentage of total population (year 1997)

A-1.3.1 Major Ethnic

Ethnic group	%
Thai	96.5
Chinese	2.61
Others	0.89

A-1.3.2 Major Language Group in the country

Language group	%
Thai	99.61
Chinese	0.36
Others	0.03

Source: Thai women; The Changing of Status and Role, Research Institute for Men and Women's Role and the Development

A-1.4 Major religion (year 1997)

Religion	Number	%
Buddhism	56,023,908	92.12
Islam	3,205,015	5.27
Christianity	814,937	1.34
Hindu , Sikh	18,246	0.03
Others	754,121	1.24
Total	60,816,227	100.00

Source: The Religious Affairs Department, Ministry of Education

A-1.5 Public expenditure on education

Public expenditure on education (US\$)	year	Expenditure on education as a percentage of GNP	year
6,702,416,000	1996	3.74	1996

Source: Bureau of Educational Policy and Planning, Office of the Permanent Secretary, Ministry of Education

A-1.6 Language

Official Language	Language of Instruction
Thai	Thai

Source: Bureau of Educational Policy and Planning, Office of the Permanent Secretary, Ministry of Education

A-2 The educational system

A-2.1 Structure. (year 1997)

Level	Duration in years	Age range taught	Total population	Total Percentage of relevant age group attending school	Compulsory or Non-Compulsory
Pre - school	3	3 - 5	2,334,247	82.16	-
Elementary or Primary	6	6 - 11	5,449,233	99.1	Compulsory
Lower Secondary	3	12 - 14	2,462,556	83.72	-
Upper Secondary	3	15 - 17	1,634,775	51.33	-

Source : Office of the Permanent Secretary, Ministry of Education

A-2.2 Class size. (year 1997)

Level	Average class size
Elementary / Primary	21.30
Lower Secondary	41
Upper Secondary	37

Source: Office of the Permanent Secretary, Ministry of Education

A-2.3 Teachers. year (year 1997)

Level	Total Number of Classroom Teachers	Teacher : Student ratio
Elementary / Primary	354,415	1 : 19
Lower and Upper Secondary	119,022	1 : 21

Source: Office of the Permanent Secretary , Ministry of Education

A-2.4 Number of Schools. (year 1997)

Level		Government	Private	Other - please specify	Total
Elementary / Primary		33,645	1,532	18 Demonstration schools	35,195
Lower Secondary		7,549	1,451	30 Demonstration schools	9,030
Upper Secondary	- General	1,768	140	1) 12 Demonstration schools 2) 22 schools under: - school for Railway - Armed forces Academies Preparatory school - Air Technical Training School - Military Technical Training School - Survey School, Royal Thai Survey Department - College of Dramatic Arts and fine Arts - College of Physical Education	1,942
	- Vocational	313	308	-	621
	- Specialized	-	17	-	17
	Total				46,805

Source: Office of the Permanent Secretary , Ministry of Education

A-2.5 Specify School Information. (year 1997)

Duration	Primary	Secondary	
		Lower	Upper
Number of school days per year for students	200	200	200
Division of school year e.g. quarter, semester	2	2	2
Number of instruction days per week	5	5	5
Teachers' average number of class contact hours per week	21	18	18
Time duration per teaching period (in minutes)	20	50	50

Source: Office of the Permanent Secretary , Ministry of Education

Section B : Curriculum Policies

B-1 Background

B 1.1 Reflection of social/economic/political/cultural contexts in curriculum policies

Over a hundred years of the Thai educational history, education has been providing to serve the needs of social, economic, and cultural changes. At the very beginning the needs were on literacy and manpower for governmental services which had been expanded and newly set up. Educational system was designed for students to be academically achieved and continue studying to the higher levels. As a result, quite a few number of students were served.

Although many schools and educational institutes had been established, only some students would have chances. One of the most important parts in educational development was in 1978 when the 1960 national curriculum was replaced by the 1978 revised curricula for both primary and secondary schools level. The long implemented 1960 curriculum were seen to be no longer serve such developing aims of the country. Based on the existing economic and social development scheme, considerations for curriculum change were made. Prominent changes were on the options and end it itself at all stages. Curriculum would serve not only for continue studying at higher levels but also provide for those who had to drop out and enter the world of work. Knowledge, skills and experiences gained should be applicable to daily living and careers. Most importantly, it was expected that educational investment would not be waste.

In the past decade when Thailand passed through transitional period of an agricultural country to an agricultural-industrial country or a new industrial country, educational policies aimed at preparing effective manpower for industrial sectors. At present time, since human development is the highlight of the current National Economic and Social Development Plan, there has been an expansion of compulsory education. Educational policies is yet to be reformed to meet the needs of the country. As far as the curriculum is concerned, The 1978 and 1981 national curricula were revised and put into effect since 1990 in order that scientific and technological progress were better responded and serve the economical and social changes at that time.

At the present time, curriculum policies have been proposed under considerations on economic, social, political, and cultural contexts of the country. Since 1996 there has been strong pressure on political and social reform. New constitution was then declared in 1997. Prominent changes and reforms seen in the newly declared 1997 constitution are as follows;

- the rights of all Thai people to be educated and sustainably well-developed and 12-year basic education must be provided
- more empowerment at local administration
- delegation of budget allocation to local level
- high privilege given to Thai tradition and local culture
- the rights to choose the way to learn
- protection of basic human rights
- equity to be provided basic services
- conservation of natural and local resources

The changing of world economic situation bring to the crisis in 1997 since such prosperity neither based on self-support technology nor genuine good quality of the people. With regards to social aspects, there has been increasing numbers of social problems such as drug abuse, criminal crimes, environmental problems, and unemployment.

Although there have been tremendous efforts in improving educational management to meet the needs of the society. Educational goals and aims could hardly be accomplished or achieved at the satisfactory level. Education is fail to develop people with good spirit, skills and proficiencies essential for living and engaging in careers which lead to better quality of life. In fact, a number of educational research works done during 1996-1970 showed several concerned findings.

- school students and university graduates have low learning skills and international communication skills.
- lack of research mind and government investment in research works are insufficient.

- achievement in science, mathematics, and languages studies are considerably low.
- teacher competencies are low.
- too much content in curriculum design.
- educational media, especially textbooks, are produced for specific subjects which lead to content-based teaching and learning. Mainly centralized system of production which hardly meet the needs of locality
- lack of social participation in the manner of stakeholder

Globalization also has strong influences in education. Progression in academic knowledge and technology are very fast and dynamic. World-wide dissemination and easily access make them not only have strong influences on way of life but also change teaching and learning methodology.

Moreover, there are the needs for international Thai society. Issues for considerations are intellectual development, technological knowledge and skills development, right respect, woman and child care, and new problems confrontation.

With regards to curriculum, the present national curriculum, the 1990 revised edition, has been designed for the 6-year compulsory education scheme at primary level and 6-year secondary school education have been provided as free options. This seems to be no longer serve the needs mentioned above and the new curriculum for 12-year basic education will be soon proposed and will be implemented in the academic year 2000.

B 1-2 Educational goals/aims for compulsory education

Since the aims, goals, strategies, and structure of the present 1990 revised edition curriculum could no longer keep up with the changes mentioned earlier. New direction of sustainable development of the society should be in focus of all dimensions of development including education.

Education system which plays important roles in human development, therefore, has been reorganizing for the 12-year basic education with emphasis on quality as well as equity. In the reform system of education, all Thai people including members of minority groups and handicaps will have equal rights and opportunity to be educated at the same standards of services. They could also have chances to choose their own track of learning.

Basic education aims at developing learners for perfect lives; i.e., being developed well in balance of spiritual, physical, intellectual and social dimensions at each grade level, being independent and interdependent to develop society and environment.

The expected characteristics of learners are as follows;

1. Be moral, ethics and value developed. Able to work and live happily in the country and global society.
2. Be in good health and good personality. Be aesthetical developed.
3. Be able to think, to solve problems, and have visions.
4. Have essential knowledge and skills. Learning continuously and throughout their lives.
5. Being national minded and good citizenship in the democratic constitution monarchy.
6. Be ready to cooperate creatively with others and be high potential to compete in global society.

B 1-3 Regulations govern curriculum policies.

As mention earlier in B 1-1, the development of curriculum policies are based on the current constitution along with the National Educational Acts, the National Economic and Social Development Scheme, and the National Educational Development Scheme.

B-2 Curriculum change

B 2-1 Major changes in the national school curriculum over the past five or ten years.

Eight years ago, in the 1990, the revised edition of the 1978 primary school and lower secondary school curricula and the 1981 upper secondary school curriculum has been promulgated to be implemented country wide. Major changes based on the research findings both on the curriculum design and implementation aspects. Curriculum framework has been set up for 3 educational stages; i.e. primary, lower secondary and upper secondary. Taking into consideration against the framework, some changes occurred in objectives of each learning experiences at the primary level and groups of subjects at the secondary level. Emphasis was more on process than contents, which are always changes and overcrowded, with the believes that this would help develop people who are able to think for themselves, to do, and to solve problem. Description of each learning experiences and courses were also revised to meet their objectives and be more flexible to be adapted by local teachers. In so far as education management is concerned, there have been changes in various issues towards decentralized system. Teachers are encouraged to develop their own classroom curriculum including teaching strategies, contents, educational materials, assessment and evaluation strategies. They even can design new elective courses to meet the needs of their students and proposed to be approved by regional authorities if they are considered appropriate to other schools. However changes from what have been doing for a long time are not easily accomplished.

B 2-2 Changes in the school curriculum likely occur in the next five or ten years.

General direction for on-going curriculum reform are to develop learners to be perfect individuals who help develop sustainable society. Basic ideas are as follows;

- 1) Holistic view of development. Learners would be developed well in balance of spiritual, physical, intellectual, and social aspects at all educational levels.
- 2) Through various teaching and learning methods and activities, learners would possess both independent and interdependent characteristics. They would be able to effectively think and practice as well as make informed decision.
- 3) Apply knowledge and experiences to be useful to the development of community, social, and nation which would eventually affect global society.

In order that learners would be developed to their highest potential and meet the needs of society, principles for basic education development have been setting up as follows;

- 1) Emphasize on self learning, lifelong learning as well as creative time spending.
- 2) Learning content, time allocation and learner development goals are all in balance.
- 3) Being flexible and meet the needs of learners, communities, societies and nation.
- 4) Every parts of the society, as stakeholders, participate in educational management.
- 5) Being learning society, knowledge and experiences could be obtained through various forms of learning, i.e.; formal, non-formal, and informal education including homeschool. So they are transferable.
- 6) Provide educational equity, both opportunities and quality, for all.
- 7) Comply with science and technological development while conserve environment.

8) Develop harmoniously nationality and internationality.

The new proposed national curriculum framework emphasize integration both within the learning areas and between learning areas where moral and ethics must be taking into account. Students will be developed appropriate attitudes and gain knowledge, skills and experiences through the three components of curriculum structure. They are:

1) Basic learning areas; namely, self development, aesthetic development, social studies, Thai language, mathematics, science and technology, work and career education, and foreign language

2) Intradisciplinary and interdisciplinary projects

3) Social activities

Subjects that has been repackaging are physical education and hygiene which will be seen in a more integrate way of human and self-development, sciences will become science and technology.

Apart from basic ideas, aims, goals, and principles, the new proposed curriculum framework composes of national standards where 18 expected outcomes of basic education are shown. Benchmarks for every three grades interval, and standards for each learning area are also set.

In practice, teachers are supposed to design both compulsory and elective courses composed in their own curriculum. It is important that they have to make sure that content, time spending, and developing goals for learners would be well in balance. Bipolar development standards, for instance, self and society, good leader and good follower, individual and group, freedom and responsibility, competition and sufficient, innovation and old wisdom, specialization and broad knowledge, are to be developed in a balancing way. Therefore it will be teachers, cooperate with community, who design their own school structure and curriculum based on the national learning standards taking in account educational goals of learners, school facilities, resources, and learning competencies.

As for the assessment and evaluation, there will be both at the local and national level. School-based assessment, using authentic assessment, portfolio, and self-evaluation of learners will be applied under local monitoring system. Provincial quality assessment will be done at each educational stage, grades 3, 6, 9, and 12, by provincial educational authorities. Assessment at the national level will be the responsibilities of central government and provincial authorities in order that the results would help improve educational development and lead to the development of educational policies at the provincial level .

B-3 Curriculum Development Process

B 3.1 System of curriculum development

Education system in Thailand has been progressing towards higher degree of decentralization. It is seen clearly in the system of curriculum development of the new proposed curriculum framework for basic education which is going to be implemented soon in the academic year 2000. The Ministry of Education as central government responsible for developing national curriculum framework, holistic view of learning standards, benchmarks at every three grades levels, and learning standards of the basic learning areas. At the school level, teachers develop their own curriculum under approval of their school boards. This means teachers themselves are authorized to set their own learning goals, contents and time spending under the condition that national learning standards are met and the needs of their students are fulfilled.

3.2 Responsibility for initiating curriculum development and 3.3 Participation of stakeholders

Initiators of curriculum development are shared among stakeholders of education and human resources development.

- Central government, through Department of Curriculum and Instruction Development, Ministry of Education, works in collaboration with education organizations, both government, non-government, and organization outside educational system including academic leaders, community leaders, university lecturers, educational supervisors, teachers, and representatives from other concerned agencies to set up and/or comment on the national curriculum framework, learning standards, and benchmarks.

- Stakeholders at local level working through school boards are responsible for approving school charter and school curriculum to ensure that the national curriculum framework will be best practice. They will also responsible for quality assurance by monitoring, evaluate and report on their curriculum implementation.

- School principals, acting as agents of changes, are responsible for quality assurance by cooperative closely with stakeholders, through school board, especially in curriculum approving and accomplishment of school charter.

- At classroom level, school teachers design their own content and learning process. Contents are chosen, to be touch on as means of learning, under consideration of localities and interest of learners while learner-centered learning approach is applied. Teachers also prepare educational media including textbooks, handout, supplementary readings, and other types of educational media. Another important task is to prepare own system of evaluation where authentic assessment is encouraged.

- Students are facilitated and supported for self-learning. They would be equipped and stimulated well to take active learning participation.

3.4 Promotion of unity/cultural diversity

It is stated clearly in the principles of the national curriculum framework for basic education that national unity as well as cultural diversity at local level must be promoted. As for the curriculum development, since it will be developed by schools under approval of their school boards based on the national curriculum framework, local cultures as well as national identity would be conserved well.

With regards to languages, there are only one national language, Thai language, which is used officially as well as in daily life of all Thai. Although there are some differences in speaking at regional parts of the country, it is always practiced by local people. Languages used by local people or minority groups, if there are any, are always encouraged to be conserved and courses of studies could be developed for curriculum implementation.

As said before that teachers are to develop their own curriculum, they also should develop or seek for materials needed for teaching and learning activities.

For the new proposed curriculum framework, community groups as well as local people are welcomed to participate in educational planning and its management in many ways. They will be appointed as member of school board, be resources person for the studies on local knowledge, tradition, culture, and local wisdom, be invited as guest speaker, offer training facilities, and provide financial support.

3.5 Particular provision made for children with special needs.

According to the newly declared constitution, all Thai people have equal right to be educated at the same standards. The government policy, therefore, allow disability groups, talent groups and children with special needs to attend in any schools together with others. Schools should manage to meet their needs and help them develop to their highest potential. Talent groups are able to complete their studies earlier than others while special help will be provided for slow learners. In addition to formal system of education, informal system such as home school will also be applied.

Section C. Curriculum Design

C 1.1 Curriculum Organization

Organization of the new proposed curriculum framework for basic education is an outcome based. Curriculum framework developed by central government comprised of basic ideas, aims, goals, principles, learning standards for 12-year basic education and benchmarks for each learning stages, taking into account development of a perfect individual needed in the Thai society of today and tomorrow. Expected outcomes of basic education have been identified and grouping into 18 learning standards. Management of each learning area, projects, and activities will then support the learning standards. Benchmarks have been developing as overall indicators for learning achievement as products of school curriculum design and implementation at each stage.

C 1.2 Design of the curriculum

The existing curriculum, the 1990 revised edition, was designed to be interpreted by teachers in their own contexts. Implementation is also vary to meet the needs of their students and availability of local resources. Curriculum development as well as elective courses to meet the needs of locality has also been encouraged.

The new proposed curriculum framework being developed will give teachers total freedom to design their own curriculum in the framework of the national curriculum and be approved by their school boards before implementation. Curriculum designed by teachers must ensure learning standards set as product of basic education.

C 1.3 Basic structure for school curriculum

As said earlier that school curriculum will be designed by teachers under approval of school boards. Combination of courses, compulsory and elective, grade level to be taught, and time allotment at each grade will be designed by teachers and vary from school to school. However the national curriculum framework gives teachers broad structure of curriculum to be covered. The following are three main categories of learning management;

1) Learning areas. There are 8 learning areas; namely, self-development, aesthetic development, social studies, Thai language, mathematics, science and technology, work and career education, and foreign language. Each learning area comprises of procedural, declarative, and contextual knowledge, essential skills, moral, ethics, and values.

The learning areas are to be set as basic and elective ones in the school curriculum structure. The following are proportion of basic and elective learning areas arrangement specified in the national curriculum framework;

Grade 1-3	=	100 : 0
Grade 4-6	=	95 : 5

Grade 7-9	=	60 : 40
Grade 10-12	=	30 : 70

2) Project works

It is important that learners should be given time to do handsome activities and produce good quality works from genuine practice. They will also practice creatively time spending while studying. Intradisciplinary and interdisciplinary projects are therefore specified in the curriculum structure. The intradisciplinary projects allow learners to apply knowledge gain from a single learning area while the interdisciplinary ones give chance to work on projects according to their interests and needs using integrated knowledge of several learning areas. It is suggested that in the lower grades intradisciplinary projects to be more emphasized than the interdisciplinary ones.

3) Social activities. This is aimed at inculcating good habits and devotion for society. Various activities can be arranged such as activities run by boy scouts, girl scouts, girl guides, and youth associations.

In order that school curriculum administration is flexible, the broad structure of learning time has been designed at each learning stage. Schools can arrange time spending on each learning activities at each grade level.

Learning time allocation (hours/credits per 3-year interval)

Learning areas	G 1-3	G 4-6	G 7-9		G 10-12	
	hrs./3 yrs.	hrs./3 yrs.	hrs./3 yrs.	hrs./3 yrs.	hrs./3 yrs.	hrs./3 yrs.
Basic	2880	2730	2040	51	1440	36
1. self-development	360	240	120	3	120	3
2. aesthetic development	240	240	120	3	120	3
social studies, Thai	360	240	240	6	120	3
language, mathematics,	360	360	240	6	120	3
science and technology,	240	240	240	6	120	3
work and career	240	240	240	6	120	3
education, and foreign	120	120	120	3	-	-
language	120	120	120	3	120	3
-intradisciplinary proj*	600	600	120	3	120	3
-interdisciplinary project	240	330	480	12	480	12
elective	-	150	1440	36	2640/ 3360**	66/ 84**
Social activities	120	120	120	-	120	-
Total	3000	3000	3600	87	4200/ 4800**	102/ 120**

* intradisciplinary projects are integrated within all learning areas

** maximum hours/credits allocation for elective learning areas at last stage, grade 10-12, of vocational education

C 1.4 Integration

Integration is applied in both contents of teaching and learning activities. Contents specified in each learning area either for basic or elective courses as means of learning are combination of contextual contents based on standards set for each learning area. While intradisciplinary project works allowed integrate knowledge to be applied within a learning area, interdisciplinary ones are for cross disciplinary integration.

C 1.5 Themes/areas to be focused in the curriculum

In order that teaching and learning would be managed towards the trends of education in the twenty first century, management in the 8 learning areas are encouraged to take into account the integration of essential topics. They are personal and global stewardship, communication, reasoning and problem solving skills, and human records. Moral, ethics, and values are also emphasized in the integrating manner of all teaching learning activities. In addition the balancing of bipolar standards of development have to be in consideration.

C 1.6 Curriculum coverage

Consideration on breath and depth of subject content and approaches, according to the proposed curriculum framework, will be made by teachers as long as the national standards for basic education are guaranteed. Subject content for basic education is seen to be mean of learning that lead to other essential knowledge and skills for longlife learning. Pressure on the coverage of the curriculum would be alleviated when outcome-based curriculum development is applied.

Section D : Curriculum Implementation

D-1 Teacher Professional Development

D 1.1 Pre-service teacher development

Pre-service teacher education qualification is required for those who wish to take teaching career. Prescribed national curriculum framework is available for teacher education. Programmes for pre-service teacher development run at tertiary level ranging from first degree to doctorate degree. Component of pre-service education programme are (1) basic educational courses such as educational philosophy, educational psychology, child development, audio-visual education (2) subject content courses according to programme of studies or major subject, (3) teaching method courses both general and specific to their selected subject, and (4) teaching practicum.

In the process of curriculum changing, cooperation between organization responsible for curriculum development, curriculum implementation, and pre-service teacher education is taking place. In fact, institutes for pre-service teacher education within the Ministry of Education participate in the curriculum development process. The Secretary-General of the Office of the Rajaphat Institutes who look after 36 Rajaphat Institutes, developed from being teacher colleges in former time, is a member of the curriculum development committee of the Ministry. This committee is responsible for taking consideration and approve the national curriculum framework before it is promulgated. Through the meeting, the Secretary-General of such organization would be well aware of the curriculum changes and understand the new direction.

D 1.2 In-service teacher development programmes

In-service professional development training courses are initiated and run by several organizations both government and private. It is not compulsory but invitation to selected schools are made for the government run programmes. In this case the organizers will responsible for all expenditures supply by government budget. Some courses that run by private organization are attended by teachers who are keen on them at their own expenses. In Thailand there are many ways that teachers can improve their knowledge. They may apply for professional association, taking interest courses, further their study to higher level both by asking permission to leave or taking night courses, taking distance learning.

Apart from qualification, knowledge and skills gained from the training and/or studying, teachers who participate in in-service training are more confident to initiate academic projects that lead to higher ranking or get professional progression. Certificates taken are then added up into their portfolio.

Strategies used for in-service training to ensure effective implementation of new curriculum initiatives are as follows;

- 1) selecting prototype or pioneer schools where teachers are to be supervised closely and treated specially.
- 2) organizing training courses
- 3) setting up professional associations
- 4) develop supervisory system and monitoring system for quality assurance

D.2 Resource Support

D 2.1 Development and supply of textbooks

In Thailand there are variety of ways for development and supply of textbooks. Central government develop, distribute, and allocate budget for production of local textbooks. Private organization can asked for approval of their own textbook in order that standards are guaranteed. Private teachers, school clusters, and regional and provincial education organization are also allowed to have their own production to meet the needs of locality and present in local contexts. The choice of textbooks is entirely made by schools and teachers.

D 2.2 Other teaching-learning support materials available for schools

Apart from textbooks, other educational materials, printed and non-printed, are produced both by government and private organizations. The materials mentioned are for instance teacher manual, exercise books, posters, games, slides, video tapes, CD-ROM, computer software, and television programmes. Distance learning and educational programmes are also produced and shown regularly.

D 2.3 Developing process of supplementary materials

As for the government, the production is initiated and if budget is provided, working groups will be appointed for developing and editing tasks. Some production needs trying out and improving steps of production. For the approval tasks, committees comprising of experts in specific areas are set up by the authorized organization. As for private production, process belong to their own ways of getting the job done.

D 2.4 How to provide to students

Some educational materials are provided free of charge to all students and some are bought. Schools are free to buy government or private produced textbooks and other materials.

D-3 Community Support

Member of community taking parts in curriculum development and implementation processes. Their participation fall into one or more of the following categories;

- 1) be invited to take part in curriculum development at national or school level.
- 2) be appointed as member of school board.

- 3) be resources person for the studies on local knowledge, tradition, culture, and local wisdom
- 4) be invited as guest speaker or local instructor.
- 5) provide training facilities.
- 6) provide financial support to school.

D-4 Classroom Strategies

Strategies employed to introduce new teaching approaches to support the curriculum implementation are as follows;

- 1) production and dissemination of curriculum documents and materials.
- 2) training courses organization.
- 3) setting up prototype schools
- 4) supervisory system
- 5) setting up educational resources center

D-5 School-based Student Assessment

D 5.1 Method of student assessment

Main method to assess students' performances are authentic assessment, portfolio, and self-assessment.

D 5.2 Main purposes of assessment at school level

Main purposes of assessment at school level are as follows;

- 1) to lead more developed and improved ways of teaching and learning techniques.

Methods used are diagnosis of learning that has occurred, measurement in students' learning progression.

- 2) to get data for remedial teaching.
- 3) to report to school board.

D 5.3 Methods of reporting students performance.

At primary level, student performances are evaluated and reported either pass or not pass the school criteria of assessment. As for secondary level, grading system, 1-4, are applied.

D 5.4 External examination system

External examination system will be employed for implementation of the new proposed curriculum. Through school board, outsiders who are appointed members taking part in examining curriculum implementation and practice of school charter. Such external examination provides schools and teachers for improving teaching and learning management as well as assure educational quality.

D-6 Barriers and constraints to effective curriculum implementation

The new proposed curriculum for basic education give freedom to design and develop curriculum. Teachers have chances to have their own selection of content, materials, techniques, and activities. The barriers and constraints to effective implementation of such decentralized policies are depend on quality of teachers, understanding of community members in education participation, and changes in attitudes and practices of teachers and stakeholders.

Section E : Curriculum Monitoring and Evaluation

E-1 Monitoring and evaluation

Processes used to monitor curriculum implementation are as follows;

1) setting up educational network for monitoring, evaluating, and reporting on curriculum implementation.

2) central government and provincial organization evaluate education quality at the national level. Results are to be used to intervene for quality development of educational institutes at provincial level and to set up educational developing policies.

3) monitoring at school level is done by stakeholders through school board.

3) Provincial quality assessment will be done at each educational stage, grades 3, 6, 9, and 12, by provincial educational authorities.

4) School-based assessment, using authentic assessment, portfolio, and self-evaluation of learners applied under local monitoring system in order that the results would help improve educational development and lead to the development of educational policies at the provincial level .

E-2 Curriculum evaluation

As for curriculum evaluation, mechanism and major tools used are research works especially on effectiveness of curriculum design, curriculum implementation, and environment affect teaching and learning.

Results of national curriculum implementation will be used as backup data to intervene school educational management and designate local and national policies of education.

E-3 Monitoring of local curriculum

School board, appointed by individual school, is responsible for monitoring tasks at the school level against school charter and quality assurance policies set for school curriculum implementation.

E-4 Student assessment for curriculum monitoring

Quality assessment will be done, against benchmarks, at each educational stage, grades 3, 6, 9, and 12, by provincial educational authorities.

E-5 Research and curriculum development

At classroom level, classroom researches are introduced and classroom teachers have been trained for properly carrying out such research works. Schools are also need to do action research in order to improve educational management and curriculum development. As for the national level, action research in education innovation, overview research on curriculum development and curriculum framework as well as research works on specific areas are needed.

USA

David Nohara

Section A: Background Information

A-1. General information

A-1.1 Size of population

(1995 U.S. Census Bureau Estimates)

	Total	Population Growth Rate
New York State	18,136,000	pop. to grow by .05% by 2000, .6% by 2005, and 2.1% by 2010
United States	262,755,000	pop. to grow by 4.5% by 2000, 8.8% by 2005, and 13.3% by 2010

A-1.2 Indicate the total number of children/youth in the following age groups, using the latest available data.

New York State (1990 Census)

Age Group	Males	Females	Total
0-4 years	640,440	615,324	1,255,764
5-9 years	589,003	589,003	1,178,006
10-14 years	581,490	558,687	1,140,177
15-19 years	627,365	602,762	1,230,127

United States (1990 Census)

Age Group	Males	Females	Total
0-4 years	9,350,461	8,913,635	18,264,096
5-9 years	9,290,556	8,836,345	18,126,901
10-14 years	8,787,735	8,363,399	17,151,134
15-19 years	9,057,977	8,593,942	17,651,919

A-1.3 Indicate the major ethnic and language groups in your country, as a percentage of total population.

New York State (1990 Census)

Ethnic group	% of population	Language group ¹	% of population
White	74	English (only)	76.65
Black	16	Spanish	11.04
Asian (or Pacific Islander)	4	Italian	2.39
American Indian	.5	Chinese	1.48
Other	6	French	1.41
		German	.77
Hispanic origin ²	12.3	Polish	.72
		Yiddish	.70
		Greek	.52
		Indic Languages	.52

United States (1990 Census)

Ethnic Group	% of population	Language Group	% of population
White	80	English (only)	86.18
Black	12	Spanish	7.52
Asian (or Pacific Islander)	.7	French	.74
American Indian	3	German	.67
Other	4	Italian	.57
		Chinese	.54
Hispanic origin	9	Tagalog	.37
		Polish	.31
		Korean	.27
		Vietnamese	.22

A-1.4 List the major religious groups in your country.

Reliable data on New York State not available.

United States³: The U.S. Census does not collect information on religion. The following table lists the membership of the major religious groups in the United States, as reported by the organizations. Because the data are reported by the organizations, they do not include people who consider themselves to be of a particular faith but who are not formally belong to

¹ From 1990 U.S. Census data, which asked, of people 5 years and over, which language the individual spoke at home.

² "Hispanic origin" is not an exclusive category. People in this group are also counted in the other categories ("White," "black," etc.).

³ K-III Reference Corporation. *World Almanac and Book of Facts 1998*.

a religious organization. Recordkeeping practices vary between organizations, and in some cases may be more accurate than others.

Affiliation	members
Roman Catholic	60,280,454
Baptist	36,673,075
Methodist	13,483,481
Pentecostal	10,333,383
Lutheran	8,322,121
Islam	5,100,000
Latter-day Saints	4,889,279
Jewish Organizations	4,300,000
Presbyterian	4,174,420
Eastern Orthodox Churches	3,385,821
Episcopal	2,536,550
Reformed Churches	2,001,412
Churches of Christ	1,655,500
Christian Churches and Churches of Christ	1,070,616
Jehovah's Witnesses	966,243
Hindu	910,000

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$US).

New York State total: \$24,531,980 (1996-97 estimated expenditure on public elementary and secondary education)⁴

As percentage of GSP: (Primary-secondary) 3.9 percent⁵

United States total: \$274,065,348 (1996-97 estimated expenditure on public elementary and secondary education)⁴

As percentage of GNP: (Primary-secondary) 3.4 percent⁵

⁴ U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics*, 1997.

⁵ U.S. Department of Education, National Center for Education Statistics. *Education in States and Nations*, (2nd ed.), 1996.

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

Neither New York State nor the United States has an official language.

A-1.6.2 If your country has several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language(s) are taught and at what levels?

New York State Law requires English to be the language of instruction in New York State schools, except in bilingual education classes for students not proficient in English.

A-2 The Education System

A-2.1 Structure

New York State (Fall, 1996 New York State Education Department data)

Note: School attendance is compulsory for children from 6 to 16 years.

Level	Duration in years	Age range taught	Population (Public and Non-public)			Percentage of relevant age group attending school		
			Males	Females	Total	Males	Females	Total
Elementary (K - 6)	7	5-12	NA	NA	1,852,635	NA	NA	
Secondary (7-12)	6	12-18	NA	NA	1,437,515	NA	NA	*

* From the 1990 U.S. Census, of persons aged 16 to 19 years in New York State, 81 percent were enrolled in "school"—which can include postsecondary education. Of the 19 percent not enrolled in school, 49 percent were high school graduates.

United States (1996)⁶

Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school		
			Males	Females	Total	Males	Females	Total
Public Pre-school	1-2	3-5	NA	NA	3,534,098	NA	NA	NA
Elementary or Primary	5-6	6-12	NA	NA	25,428,183	NA	NA	approx. 98%
Lower and Upper Secondary	6-7	11-18	NA	NA	20,282,323	NA	NA	*
Ungraded or in Combined Schools	1-12	6-18	NA	NA	2,037,122	--	--	--

* In 1990, of persons aged 16 to 19 years, 78 percent were enrolled in "school"—which can include postsecondary education. Of the 22 percent not enrolled in school, 48 percent were high school graduates.

If possible, attach a diagram of the school educational system in your country.

"Figure 1, The structure of education in the United States," from *The Digest of Education Statistics* is attached. A chart specifically for New York State would be virtually identical. The State Education Department classifies schools in the following categories⁷:

Elementary Schools: Schools containing at least one grade lower than 6 and no grade higher than 9, except those classified as middle schools.

Middle Schools: Schools having any of the following grade organizations: 5-7, 5-8, 6-8.

Junior High Schools: Schools containing no grades lower than 6 or higher than 9, except for grade 6-8 schools which are classified as middle schools.

Junior-senior High Schools: Schools containing any grade organizations which includes both lower and higher than 9, except those which have all grades kindergarten through 12.

Senior High Schools: Schools having no grade lower than 12.

K-12 Schools: Schools containing all grades kindergarten through 12.

A-2.2 Class size

⁶ U.S. Department of Education. National Center for Education Statistics. *Statistics in Brief: Public School Student, Staff and Graduate Counts by State, School Year 1996-97*; NCES, *Private School Universe Survey, 1995-96*.

⁷ New York State Education Department. *Public School Enrollment and Staff, 1996-97*.

New York State (1996)⁸

Level	Average Class Size
Elementary (1-6)	24
Lower Secondary	24.2 ⁹
Upper Secondary	24.6 ¹⁰

Unites States (1993)¹¹

	Average Class Size
Elementary/Primary	24.1
Secondary	23.6

A-2.3 Teachers

New York State (1996-97)¹²

Level	Number of Classroom Teachers (Public)			Teacher: Student Ratio (Public)
	Males	Females	Total	
Elementary/Primary	NA	NA	82,069	1:15.6
Lower Secondary and Upper Secondary	NA	NA	63,744	1:18.3
Ungraded classes	NA	NA	27,044	--

Note: The New York State Education Department reports a total of 41,058 classroom teachers employed in non-public schools, but does not report on the number of teachers at different grade or school levels.

⁸ New York State Education Department. *Statewide Profile of the Educational System*. 1996.

⁹ For English 7 classes, size of other classes may differ

¹⁰ For U.S. History and Government classes, size of other classes may differ

¹¹ U.S. Department of Education. National Center for Education Statistics. *The Condition of Education 1997*, by Thomas Smith. Washington, D.C.: U.S. Government Printing Office, 1997.

¹² U.S. Department of Education. National Center for Education Statistics. *Statistics in Brief: Public School Student, Staff and Graduate Counts by State, School Year 1996-97*.

United States (1996)¹³

Level	Number of Classroom Teachers		Total	Teacher: Student Ratio (Public)
	Percent Male ¹⁴ (1993, public only)	Percent Female (1993, public only)		
Elementary/Primary	12	88	1,330,894	1:15.8
Lower Secondary and Upper Secondary	52	48	955,052	1:20.4
Combined or Ungraded classes	NA	NA	351,180	--

A-2.4 Number of Schools

New York State (Fall, 1996 New York State Education Department Data)

Level	Public	Private	Total
Elementary	2,468	1,370	3,838
Lower Secondary	629	25	654
Upper Secondary	593	219	812
Combined Upper-Lower Secondary	251	88	339
K-12 Schools	79	289	368
Special (ungraded) Schools	91	166	257
Total	4,111	2,157	6,268

United States (1993)¹⁴

Level	Public	Private	Total
Elementary/Primary	58,013	15,537	73,550
Secondary	19,648	2,552	22,200
Combined	3,079	8,006	11,085
Total	80,740	26,095	106,835

¹³ U.S. Department of Education. National Center for Education Statistics. *Statistics in Brief: Public School Student, Staff and Graduate Counts by State, School Year 1996-97*; NCES, *Private School Universe Survey, 1995-96*.

¹⁴ U.S. Department of Education. National Center for Education Statistics. *Schools and Staffing in the United States: A Statistical Profile, 1993-94*.

A-2.5 Specific School Information:

New York State

New York State	Primary	Secondary	
		Lower	Upper
Number of school days per year for students (1 day is comprised of 5 instructional hours in the primary grades, and 5½ instructional hours in the secondary grades)	180 ¹⁵		
Division of school year (e.g. quarter, semester)	varies by school	semesters, quarters	
Number of instruction days per week	5		
Teachers' average number of class contact hours per week	should not exceed equivalent of 25 class periods		
Time duration per teaching period (in minutes)	periods not usually used	varies by school , but usually at least 36 minutes	

A-3. Any other relevant background information

Please provide here any other background information that will assist in the interpretation of your country response.

Section B: Curriculum Policies

B-1. Background

B-1.1 In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please provide up to three specific examples to illustrate your answer.

Example 1: State and Local Control of Education

In the United States, the right to decide what is taught in schools has historically belonged to local communities and states. Thus, while there are similarities across states and between different communities in terms of curriculum content, there is no national curriculum or education system. The balance of power between states and communities over such matters as curriculum and school structure varies from state to state. Because New York State has state syllabi for major courses and a statewide system of examinations around which graduation requirements are built, much of the authority is centralized at the state level. However, local school boards still retain the power to decide which courses

¹⁵ State law requires 190 days "inclusive of legal holidays."

will be offered (but within state guidelines), establish additional graduation requirements, determine which elective courses will be taught, and propose courses and syllabi to be used in place of those developed by the state.

Example 2: Belief That All Students Can and Should Pursue an Academically Rigorous Education

An emerging belief that is having a strong influence upon education policy in the United States, and New York State in particular, is that *all* students can and should attain high levels of academic achievement. While all students have always been required to satisfy the graduation requirements established by the state, two types of diplomas were offered. One, a Regents diploma, was for students who took a certain set of courses for which state examinations are given and who had passed the examinations in those subjects (Regents Courses and Examinations). The other, the local diploma, was for students who took courses covering similar subject areas but at a lower level of difficulty and sophistication and for which examinations are developed locally (local courses). Over the next several years however, the state is phasing in new requirements that will drastically reduce the number of local courses by requiring all students to pass a battery of statewide Regents Examinations. The impact of this change will be felt more strongly in some districts than in others. For example, in the state's five largest cities, only 22 percent of 1997 graduates received Regents diplomas, compared with 53 percent in suburban districts. There will still be a two-tier diploma system, but requiring all students to take more Regents course and examinations is generally viewed as an increase in expectations for all students.

Example 3: Separation of Church and State

The separation of church and state as established in the U.S. Constitution continues to have a significant influence upon public school curricula. Because schools are prevented from promoting a particular religion or belief system, and because ideas of morality and values are often based on religious beliefs, state and local curricula tend not to address issues of morality and values. While in various situations, students might learn about religions and belief systems, or might be asked to examine decisions or events and analyze the belief systems underlying them, school curricula generally do not address whether particular values or beliefs are right or wrong.

B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

New York State Regents Goals for Elementary, Middle, and Secondary Students (established 1991) (abridged)

Goal 1: Each student will master communication and computation skills

Goal 2: Each student will be able to apply methods of inquiry and knowledge learned through the following disciplines and use the methods and knowledge in interdisciplinary applications:

English language arts
Science, mathematics, and technology
History and social science
Arts and humanities
Language and literature in at least one language other than English
Technical and occupational studies
Physical education, health, and home economics

Goal 3: Each student will acquire knowledge, understanding, and appreciation of the artistic, cultural, and intellectual accomplishments of civilization, and develop the skills to express personal artistic talents.

Goal 4: Each student will acquire and be able to apply knowledge about political, economic, and social institutions and procedures in this country and other countries.

Goal 5: Each student will respect and practice basic civic values and acquire and use the skills, knowledge, understanding, and attitudes necessary to participate in democratic self-government.

Goal 6: Each student will develop the ability to understand, appreciate, and cooperate with people of different races, sex, ability, cultural heritage, national origin, religion, and political, economic, and social background, and to understand and appreciate their values, beliefs, and attitudes.

Goal 7: Each student will acquire the knowledge of the ecological consequences of choices in the use of the environment and natural resources.

Goal 8: Each student will be prepared to enter upon post-secondary education and/or career-level employment at graduation from high school.

Goal 9: Each student will develop knowledge, skills, and attitudes which will enhance personal life management, promote positive parenting skills, and will enable functioning effectively in a democratic society.

Goal 10: Each student will develop a commitment to lifetime learning and constructive use of such learning, with the capacity for undertaking new studies, synthesizing new knowledge and experience with the known, refining the ability to judge, and applying skills needed to take ethical advantages of technological advances.

B-1.3 What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programmes, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

The power to make law regarding education ultimately rests with the State Legislature, but it delegates responsibility for curriculum to the Board of Regents and the Commissioner of Education, who can act on behalf of the Board of Regents. The Legislature does occasionally use its power to direct the Regents and the Commissioner to develop regulations that would require certain topics be taught. Examples of these topics include: patriotism and citizenship, general elections, physical education, the prevention of child abduction, the abuse of alcohol, tobacco, and other drugs.

Thus, the power to establish regulations regarding school curriculum in New York State rests with the Board of Regents and the Commissioner of Education. The vast majority of regulations regarding curriculum exist in the form of Regulations of the Commissioner and policy memoranda from either the Board of Regents or the Commissioner. The Regulations of the Commissioner specify the subjects to be taught in elementary school and lower secondary school, and the courses required to graduate from high school. The regulations for elementary school specify the subjects to be taught, but not the time to be spent on each. Regulations for secondary school specify the courses students are required to take and the number of units (credits) to be taken in each. In addition, Commissioner's Regulations also outline a program of assessments for all grade levels.

In each of the subjects specified, the State Education Department (SED) has developed course syllabi for each grade level. Schools are not required to use these; however, they are provided as suggestions and resources for schools and teachers.

Currently, the existing regulations and the state syllabi are being de-emphasized in favor of the state's new Standards for Learning and Curriculum Frameworks. Neither the Standards nor the Frameworks exist as regulation, but rather as policy adopted by the Board of Regents. They do not specify time requirements for subjects, nor do they indicate what is to be taught at particular grade levels. Instead, they describe desired "performance standards" at three levels roughly corresponding to elementary, lower secondary, and upper secondary. Performance standards describe the knowledge or skills should have, such as this Intermediate level performance standard for mathematics, science, and technology: "use statistical methods and measures of central tendencies to display, describe, and compare data." While technically, schools are not yet legally required to utilize these new standards and frameworks, and unsolicited state review of local curriculum is rare, districts and schools have a strong incentive to follow the new standards and frameworks since they will serve as the basis of the state's student assessments.

Regarding teacher education requirements, the Rules of the Board of Regents and the Commissioner's Regulations specify requirements for the different types of certificates and the conditions under which non-certified teachers may be employed.

B-2. Curriculum change

B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.

Over the past several years, the Board of Regents and the Commissioner of Education have adopted several major policies affecting curriculum. All of the changes have been prompted by a perceived need to raise the levels of educational attainment of all students that has been expressed at both the national and state levels.

1991—New Compact for Learning and Revised Regents Goals for Elementary, Middle, and Secondary School Students

The New Compact for Learning was a policy statement announcing the creation of new statewide committees on curriculum and assessment, more autonomy for schools and districts in devising ways to meet the new standards, and a requirement for each school building to have "site-based management teams" that would include parents and teachers in the school's decision-making process. Along with the New Compact, the Board of Regents adopted a new set of goals for students. (see B-1.2)

The New Compact for Learning's most lasting impact upon school curricula was to begin the process that would lead to the state's new Standards for Learning, Curriculum Frameworks, and assessments.

1996—New Standards for Learning and Curriculum Frameworks

In 1996, the Board of Regents adopted new Standards for Learning for all students. This set of standards contained a total of 28 standards, most of which are connected to a particular subject. The standards were further elaborated in the Curriculum Frameworks for seven academic areas. Both the Standards for Learning and the Curriculum Frameworks built on the earlier work of the curriculum and assessment councils created under the New Compact for Learning, with a continued emphasis on the integration of subjects and the application of knowledge. This emphasis was due in large part to general trends in education reform throughout the country.

The Standards for Learning and the Frameworks represent a shift away from the previous approach to curriculum development, which used state-developed course syllabi. The Standards and the Frameworks are not curricula themselves, but rather describe "Performance Standards" for each standard at three general levels of development, corresponding to the elementary, lower secondary, and upper secondary grades. Thus while they do address content, they do not prescribe amount of time to be spent on particular topics, nor do they prescribe the sequence of topics within levels.

1997—Plan for requiring all students to take Regents Examinations

New York State has a system of voluntary statewide assessments in most academic subjects at the high school level, known as the Regents Examinations. At individual high schools, courses are generally classified as Regents courses, which are intended to prepare students for the Regents examination in that subject; and local courses, which have a locally developed examination. Curricula of Regents courses are based on the statewide assessment and are considered more demanding than local courses, which have no such assessment standard.

In 1997, as part of the ongoing strategy to raise academic achievement of all students, the Regents and the Commissioner announced a plan that would require *all* students to pass a set of five Regents Examinations in order to graduate from high school. This proposal, which is being phased-in over a five-year period, will have a major impact upon curricula for students who would otherwise have taken the less demanding local courses. In 1997, 58 percent of graduates did not receive Regents diplomas, which are based on a set of examinations similar to what the new plan would require. This percentage is much higher in urban districts (78 percent) than in rural districts (54 percent) and suburban districts (47 percent).

1998—Revision of Graduation Requirements

Another component of the overall strategy to raise levels of academic achievement of all students was revised graduation requirements. In addition to the set of five Regents examinations described earlier, the new graduation requirements increase the number of credits required from 20.5 to 22. The increase in required total units of credit is the result of an increase in requirements for core academic subjects, including mathematics and science.

These revised requirements are expected to result in more student time spent in core academic areas, following a curriculum to prepare them for Regents examinations. It is expected that there will be less time spent in elective courses and local, non-Regents courses.

B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for curriculum development in the next five to ten years, such as: globalisation; information technology; communication; and the national/cultural identity?

The next several years will be spent on implementing the changes outlined above to raise levels of academic achievement through higher standards, revised assessments, and changes in teacher preparation and professional development. At the school level, it is expected that the focus of curriculum development will be on preparing all students to

pass the Regents examinations required for graduation. The SED hopes to see innovation at the local level in designing curricula to meet these standards.

B-3. Curriculum Development Process

B-3.1 Is your country's system of curriculum development centralised, partially centralised, or decentralised? Please explain your answer.

The process is best described as partially centralized (at the state level), because while teachers, schools, and districts can design their own set of course offerings and course syllabi, they must do so within state guidelines. State law specifies the subjects that must be taught in elementary schools, and the course and examination requirements for graduation from high school. Thus, schools must offer courses to meet the state requirements, and must design curricula that will prepare students for the state examinations. State syllabi exist for all subjects at all grade levels, however, schools are allowed to propose alternate syllabi and develop elective courses in addition to those required by the state. In some cases syllabi for elective courses must be reviewed by the SED.

The SED is in the process of publishing a series of resource guides for teachers to accompany the new curriculum frameworks. These guides include examples of lesson plans and teaching strategies submitted by teachers. Teachers are not required to use these guides; they are provided solely as suggestions. The SED has also published *English Language Arts Resource Guide with Core Curriculum*, which provides greater detail regarding expectations of student performance than the other frameworks and resource guides, but are intended only to help teachers better understand the framework. The goal of local flexibility within state-developed standards is reflected in the introduction to this document:

"The English Language Arts Core Curriculum is an outline which provides an additional level of specificity to the learning standards for English Language Arts. It respects the tradition of local choice in New York State that empowers educators to select texts, identify products, and use a rich array of instructional strategies and activities to meet student learning needs. The Core Curriculum is designed to provide assistance while allowing for creativity in the development of local instructional materials."

B-3.2 Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-governmental agencies, private companies, etc.).

Schools and teachers are the ones ultimately responsible for deciding what is taught and how it is taught. They must however, take into consideration any pertinent state

regulations, policies, and assessments. The State Education Department exerts its greatest influence over curriculum through its graduation requirements and its statewide assessments, both of which it revises when it sees it as appropriate.

The State Education Department's legal responsibilities for curriculum development are broad but not explicit, thus the degree of its influence—the degree to which it specifies what is to be taught, when it is to be taught, and how—is determined more by tradition, current political climate, trends in education reform, and the personalities of the Commissioner, Regents, and other officials. For example, the new Learning Standards and Curriculum Frameworks are intended to provide more flexibility to districts and schools in designing courses and syllabi than under the previous system, which emphasized the use of state syllabi.

Although the federal government has no formal role in curriculum development in New York State, it has influenced curriculum development in several instances. The 1983 report, *A Nation at Risk*, called attention to low standards for high school graduation and sparked an increase in graduation requirements in most states, including New York State. Through GOALS 2000, the federal government provides funding to support state and local efforts to raise education standards through curriculum development and staff development. In New York State, although a considerable amount of curriculum development activities were underway when the SED received GOALS 2000 funds, the additional support helped to facilitate the process. The federal government has also supported various initiatives to develop model standards in academic subjects. Although New York did not adopt any of the resulting standards directly, it did review them in developing its own Standards for Learning and Curriculum Frameworks.

Additionally, a wide range of groups and organizations at the local, state, and national level may advocate particular changes in the curriculum. These groups may even develop curricula of their own for states, districts, or teachers to adopt for use with their students.

B-3.3 In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc.) accommodated in the decision making processes? Please give some recent specific examples.

Organizations and individuals outside the State Education Department, such as parents, teachers' union representatives, researchers, and business leaders are often involved in developing policy recommendations, most typically as members of SED curriculum committees, task forces, and advisory councils.

In addition to the frequent involvement of outside organizations and individuals in formulating policy recommendations, major policy proposals are usually accompanied by the solicitation of various views. For all the reforms discussed so far—the new Standards for Learning, Curriculum Frameworks, graduation requirements, and requirements for teacher licensure—public forums were held across the state so the general public could provide their reaction directly to the Commissioner, members of the Board of Regents, and staff of the State Education Department. The Commissioner will often seek the

reaction of organized constituent groups, such as associations of teachers, principals, school boards, business leaders, and parents.

In addition, any changes to the Rules of the Board of Regents or the Commissioner's Regulations must follow a process that includes a Period for Public Comment, where group or individual may provide comment on the proposed changes to the state, Regents, or the Commissioner.

B-3.4 In what ways does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.

There is no one standard or performance indicator addressing issues of unity and diversity; rather, both are commonly recurring themes throughout many of the standards, particularly those dealing with social studies, English language arts, and the arts. The goal is for students to gain an awareness of the historical events, traditions, and values that unify people. At the same time, students are expected to learn about different cultures and to be able to see issues from a variety of points of view.

Examples of performance indicators that emphasize unity and diversity include:

"Students should comprehend the development of American culture, its diversity and multicultural context, and the ways people are unified by many values, practices, and traditions." (Social Studies Framework, Standard 1, Performance Indicator A)

"Students should understand the American idea of constitutional government, the values and principles of American constitutional democracy, the federal system of the United States, the role and structure of state and local government in New York, and the nature of civic life at the local, state, and national levels." (Social Studies Framework, Standard 5, Performance Indicator A).

"Understanding the Cultural Dimensions and Contributions of the Arts—Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of past and present society." (Standards for Learning for the Arts, Standard 4)

Although neither "diversity" nor "unity" are named in individual standards or performance indicators in the English Language Arts Framework, teachers are encouraged to:

"[incorporate] in the curriculum multicultural texts that reflect the lives and experiences of the students, including, where possible, some texts students can read in their primary language;"

and to:

"[invite] students to bring their unique knowledge to the classroom."

Promoting cultural unity is also one of the few areas where the state legislature exercises its authority over curriculum matters. In state law, it provides specific instruction to the Regents, the Commissioner, local boards of education to ensure that all students have instruction in "patriotism, citizenship, and human rights issues," in order to "promote a spirit of patriotic and civic service and obligation and to foster in the children of the state moral and intellectual qualities which are essential in preparing to meet the obligations of citizenship in peace or in war." (NYS Consolidated Law, Article 17, Section 801)

B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.

Intellectual ability—Traditionally, students in New York State have been able to choose between two different types of diplomas, a "Regents" diploma, and a less rigorous "local" diploma. The purpose of having two different types of diplomas is to provide options for students based on their interests and abilities, while at the same time establishing minimum standards for study for all students. Even though the state is in the process of raising educational standards and graduation requirements, current plans maintain a two-diploma system, with a "Regents" diploma, and a more rigorous "Advanced" diploma.

Commissioner's Regulations also require that students scoring below specific points on state assessments be provided remedial instruction to help them raise their competency in basic academic skills.

One of the goals of the recent reforms in state curriculum policy is to foster greater innovation among schools and districts in how they meet the needs of individual students. While the curriculum frameworks establish standards for what students are expected to know and be able to do, decisions regarding methodology are for the most part left to individual districts. Thus, to help low-achieving students, districts have the ability to spread course material over a longer period of time, or use alternative methods of instruction.

Disabilities—In cases where students have been identified as disabled, either physically or mentally, the Commissioner's Regulations require that local boards of education ensure that these students "have the opportunity to participate in school district programs, to the maximum extent appropriate to the needs of the student ... which are available to all other students enrolled in the public schools of the district." The regulations do not specify curriculum topics for students with disabilities, but rather require districts to develop individual learning plans for these students, and describe elements the plan should include. Elements related to curriculum include a plan for transitioning the student into post-high school activities, such as employment, vocational training, or postsecondary education.

The regulations also specify that the services provided to help students meet the goals of their individual learning plans be in the "least restrictive environment" as is appropriate for them, and describe a "continuum of services" that may be provided them, including such delivery options as instruction in resource rooms and instruction in special classes.

Gender, socio-economic status, ethnicity—State education department policy in general does not include provisions for curriculum, curriculum elements, or instructional services based on gender, ethnicity, or socio-economic status. It does, however, seek to ensure that students are not discriminated against on these factors. While schools may receive supplemental funding in the form of grants from national, state, or local sources to raise the levels of academic achievement of particular student groups such as females, minorities, or low-income students, they do not design curricula specifically for them.

Students with Limited English Proficiency (LEP students)—Commissioner's Regulations require local boards of education to identify students with Limited English Proficiency (LEP) and develop a plan to provide them with appropriate services. The state offers funding to districts for instruction for LEP students, if the districts comply with a set of state guidelines. Although these guidelines do not specify curriculum topics or methodology for teaching LEP students, they do state that LEP students must have an English as a second language program that is "designed to develop skills in understanding, speaking, reading, writing and communicating in English and shall be provided for a minimum of one unit of study or its equivalent." Schools may also provide a bilingual education program, which must have an English as a second language component, but which also includes instruction in the student's native language "designed to develop communication skills, including those of listening, speaking, reading, and writing, in a student's home language as well as an appreciation of the history and culture of the United States and the country of origin, through the study of literature." A bilingual program is required if a district has 20 or more LEP students of the same grade level with the same native language.

Section C: Curriculum Design

C-1. Curriculum organization

C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

Curriculum design in New York State has elements of all three of the approaches mentioned. Looking only at the state level, the 28 Standards for Learning are grouped by content and topics areas, such as social studies or English language arts, but may describe a competency or outcome, for example:

"Students will read, write, listen, and speak for information and understanding. As listeners and readers, students will collect data, facts, and ideas; discover

relationships, concepts, and generalizations; and use knowledge generated from oral, written, and electronically produced texts. As speakers and writers they will use oral and written language to acquire, interpret, apply, and transmit information." (English Language Arts, Standard 1: Language for Information and Understanding)

Similarly, the performance standards and indicators that add greater detail to the standards may also call for "understanding" of a subject-specific fact, topic, or concept, or may indicate the importance of a particular skill, such as applying knowledge in different settings.

C-1.2 Please describe whether your curriculum is mainly designed to:

- be implemented by teachers as written OR;
- be interpreted by teachers and implemented with variations OR;
- give teachers total freedom to create the curriculum OR;
- some combination of the above.

Please give examples to illustrate your answer.

At the school and classroom level, teachers typically develop curricula based on the state standards and frameworks, possibly using resource materials provided by the state, but adding much greater detail regarding the topics to be addressed and the time spent on each topic. Thus, while teachers are expected to use the standards and frameworks as the basis for their curriculum, they have considerable flexibility in designing a curriculum for their own classes, particularly in choosing materials and instructional methods.

The new state standards and frameworks represent a new approach toward curriculum development. Although implementation of this new approach has already begun, elements of the previous approach are still in existence. Under that approach, the state developed syllabi for each subject at each grade level. While these syllabi were not mandatory, many teachers used them directly in their classes with few modifications. These syllabi are available, but in most cases, the state is not encouraging their use without modifications on the part of the teacher, as they do not necessarily reflect the new standards and frameworks.

C-1.3 Basic structure of the current and/or future school curriculum

Please give the range of subjects offered in your country in years 1-9/ grades 1-9, giving specific information on the following matters:

- indicate what subjects are compulsory or optional;
- indicate time allocation for each subject (in hours per year). Note - if your country does not have a pre-set time allocation either estimate or state 'not available';

**-How many hours a week are allocated to co-curricula (or extra-curricula) activities?
Are these compulsory or elective?**

The subjects listed in the chart below are the subjects required by the state to be taught in grades 1-8. In grades 1-8, the state provides few guidelines for optional courses, nor for co-curricular or extra-curricular courses or activities.

The curriculum for students in grade 9 is influenced by the state's graduation requirements. These requirements specify the units of study required in specific subjects over the course of four years, but not for any one year in particular. Thus there are no requirements for what a student in grade 9 must study. The majority of ninth grade students, however, take courses in the core academic areas identified in the graduation requirements (English language arts, social studies, science, and mathematics).

A "unit" in seventh and eighth grade is defined as 180 minutes of instruction per week for every week school is in session.

There are no time-based requirements in grades 1-6, and time in each subject at the elementary school level varies by school and teacher.

Subject	Grade/Year						
	1	2	3	4	5	6	7 and 8
mathematics	x	x	x	x	x	x	2 units
reading	x	x	x	x	x	x	
spelling	x	x	x	x	x	x	
writing	x	x	x	x	x	x	
English language	x	x	x	x	x	x	2 units
geography	x	x	x	x	x	x	
U.S. history	x	x	x	x	x	x	
social studies							2 units
science	x	x	x	x	x	x	2 units
health	x	x	x	x	x	x	½ unit
music	x	x	x	x	x	x	½ unit
visual arts	x	x	x	x	x	x	½ unit
physical education	x	x	x	x	x	x	
bilingual education/ English as a second language ¹⁶	x	x	x	x	x	x	
technology ¹⁷ education							1 unit
home and career skills							1 unit
library and information skills							1 unit
language other than English	2 units before grade 10						

¹⁶ Where student need has been established.

¹⁷ The Regulations of the Commissioner state: "The requirements for technology education, home and career skills, and library and information skills may be met by the integration of the learning outcomes of such subjects into other courses..."

C-1.4 Integration

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

Curriculum integration continues to be seen as a valuable strategy for deepening students' understanding of academic content. Although the State Education Department does not require schools to integrate content from different subjects, it encourages curriculum integration in several different ways. One example is found in how the state categorizes the 28 Standards for Learning. It has grouped the standards into seven subject-based areas, such as English language arts and social studies. One of those areas is "Mathematics, Science, and Technology," which contains seven standards. Within those seven standards there is one standard each for mathematics, science, and technology, while the other four address all three subjects. Although this is not total integration of content, by placing the three subjects under the same category, it is hoped that the teachers of these subjects will begin to develop a sense of shared responsibility for reaching all of the standards.

The State Education Department also allows and sometimes encourages secondary schools to develop their own courses that combine two or more subjects. A fairly common combination is English and social studies. The development of these integrated courses has accelerated recently, in anticipation of new state policies.

In some cases, schools are allowed to grant credit for one subject based on study in another subject, provided the class contains a substantial amount of material related to the first subject. For example, there are cases where upper secondary school students earn mathematics credit in a technology class, and lower secondary schools are allowed to grant credit in technology education, home and career skills, and library and information skills for work completed in other classes.

Curriculum integration is far more common at the elementary school level, where classroom teachers teach all the core subjects, and where there are no requirements that subjects be treated separately, and no requirements for time in each subject. Although there are no requirements regarding integration, the State Education Department encourages both the combination of different subject areas and theme-based approaches to learning. An example of its support is the recently published "Early Elementary Resource Guide to Integrated Learning," which contains model activities developed by teachers that address standards from a variety of subjects.

C-1.5 Specific areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated area, at what level of schooling they are taught, etc.).

Themes/Areas	how curriculum deals with it	Level of schooling
values/international understanding (e.g. moral ethical issues)	Part of subject area: Social Studies standards include understanding world history from "a variety of perspectives," that "students should recognize changing and competing interpretations of historical developments." Aside from requirements that schools provide instruction in patriotism and citizenship, promoting specific values or views of morality is not included in state curriculum policies.	K-12
education for the world of work	As separate subjects: state requires career skills classes at the lower secondary school level As elective subjects: internships in industry areas and vocational classes available at upper secondary level Sequence of course in occupational studies or foreign language required for Regents (honors) diploma	7-12 9-12 9-12
foreign languages (for students proficient in English)	As separate subject area: one unit required before tenth grade Sequence of course in occupational studies or foreign language required for Regents (honors) diploma	1-9 1-9
computer/information technology	Integrated throughout curriculum: addressed in several of the 28 Standards for Learning, including: "Students will access, generate, process, and transfer information using appropriate technologies." separate subject: one unit each of technology education and library and information skills separate subject (in some schools): elective courses in computers, software, technology, etc. developed by local districts and schools	K-12 7-8 7-12
health education (e.g. diet, drugs, HIV/AIDS)	separate subject: required in K-6 program, ½ unit required in grades 7 and 8, and for graduation from high school (parents can request child not participate in HIV/AIDS prevention instruction)	K-12
environmental education	part of subject area: addressed in mathematics, science, and technology standards	K-12

C-1.6 Curriculum coverage

C-1.6.1 What are the issues in your country with regard to pressure on the coverage of the curriculum?

Being able to cover all the material required by the new Standards for Learning and graduation requirements is a major concern in districts where large percentages of students currently do not take Regents courses, such as urban districts. Many teachers and administrators feel the new requirements can only be achieved through a combination of additional time, money, and professional development—resources which are often scarce.

More generally, many teachers and local administrators have expressed concern that there is not enough time to properly cover the content they are required to teach. In addition to the courses required by the state, local districts may have their own requirements for students. These may include local history, community service, or career development, among others. The SED's new approach to curriculum development, where the frameworks of performance standards are generally much less specific than the previous state syllabi, are intended to allow districts, schools, and teachers to make their own decisions in creating a balance between depth and breadth.

C-1.6.2 What steps, if any, are being taken to address these concerns?

The state has taken few direct steps to address this issue. The new approach to curriculum development does allow for greater local flexibility in designing courses and programs of study. At the same time, however, the Regents and the Commissioner recently raised the number of courses required for graduation, thus emphasizing more in-depth study of core academic content over elective subjects.

The SED also encourages schools to experiment with block scheduling at the secondary school level. In a traditional schedule, students have the same classes every day for a single class period. In a block schedule, students stay in a particular class for two or more periods in a row on a given day, but do not have that class everyday. This does not increase the amount of time devoted to a particular class, nor does it affect content, but the belief is that the longer class periods of block schedules increase understanding by allowing students and teachers to focus more than they would in shorter class periods.

Section D: Curriculum Implementation

D-1. Teacher Professional Development

D-1.1 Pre-service teacher development

D-1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

Yes—The Commissioner's Regulations specify the minimum qualifications for obtaining both provisional and permanent certification as a teacher. The requirements are stated primarily in terms of types of postsecondary degrees, numbers of postsecondary courses in specified content areas, experience, and performance on a certification examination. (See D-1.1.4 below for more detail.)

The Commissioner's Regulations also include provisions for granting certificates to teachers certified in other states and for the employment of non-certified teachers in schools.

D-1.1.2 Is there a prescribed national curriculum/guidelines/framework for pre-service teacher education in your country?

The Commissioner's Regulations specify the number of postsecondary credits required in different subject areas, but do not prescribe syllabi for those subjects.

D-1.1.3 What is your country's programme for pre-service teacher development?

Level of Teacher	Title/Length of Program	Type of Institution	Minimum entry requirement
Primary (Pre-kindergarten-6)	Length of program not specified, but typically part of a 4-year baccalaureate	Typically, a four-year postsecondary education institution with a teacher education program approved by and registered with the State Education Department	Varies by institution, but usually at least a high school diploma
Secondary (7-12)			

D-1.1.4 Pre-service teacher education programmes usually include components of education foundations (e.g. sociology of education, history of education); general methods courses (e.g. educational technology, classroom management, assessment); subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practicum. Please describe the general components of the pre-service teacher education programme in your country.

Professional Education: Courses which "enable the teacher to create a productive learning environment, plan and execute instructional activities, monitor and assess student learning and address the special developmental needs of [the students in the grade levels for which certification is sought]." Examples of possible course titles in this category include "Child and Adolescent Development," "Instructional Materials and Design," and "Social

Concerns in Schools.”¹⁸ These courses “must prepare the teacher to work effectively with students from minority cultures, students of both sexes, students from homes where English is not spoken, students with handicapping conditions, and gifted and talented students.” For elementary teachers, courses from this category must include study in the teaching of reading.

Subject courses: For elementary teachers, these must include courses in English, mathematics, science, and social studies; for secondary school teachers, courses in the area for which certification is being sought; for both, study of a language other than English.

Teaching practicum: There are no time requirements for the student teaching experience; however, the SED reviews each program. Student teaching experiences are generally postsecondary courses that combine time spent in the classroom under the direction of a supervising teacher with meetings with fellow student teachers and faculty at the postsecondary institution. Teaching practica differ in the amount of classroom time, the amount of time the student teacher spends teaching (as opposed to observing), the number of different grade levels and classes in which the student teacher gains experience, and the point in the program at which the practica takes place (e.g. after the 2nd year, etc.)

D-1.1.5 Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education? Please give specific examples to illustrate your answer.

There is no formal process for ensuring that pre-service education programs address changes in school curriculum. Faculty of teacher education programs develop their own course curricula and syllabi. Education courses often address recent developments and trends, but this is done at the choice of the instructor or department. While most students in teacher preparation programs in New York State intend to teach in New York State, teacher preparation programs are not developed specifically for the purpose of preparing students to teach in New York State. As a result, New York State’s new Standards for Learning and other state-specific initiatives may not necessarily be prominent features of teacher preparation programs.

The SED does monitor teacher education programs, with an emphasis on academic standards for graduates (e.g. scores on teacher licensing examinations) and whether they offer an appropriate set of courses.

D-1.2 In-service teacher development programmes

D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?

¹⁸ Courses offered at the University at Albany.

In-service professional development is compulsory for teachers with *provisional* certificates. A provisional certificate is the certificate teachers are granted after meeting the state requirements for postsecondary study, student teaching experience, and achievement on a certification examination. The provisional certificate is valid for five years. In order to obtain a *permanent* certificate, teachers must obtain a master's degree in a field related to education or the teacher's subject area.

After receiving a permanent certificate, further professional development is voluntary, except for the school- or district-wide staff development days held during the year. The number of staff development days per year varies by district, but is typically fewer than five.

In June, 1998, the Board of Regents adopted a new policy for teacher certification. Key changes include requiring teachers to obtain their master's degrees before they begin teaching, or within two years of initial employment, and requiring all teachers to participate in at least 175 of professional development activities every five years, regardless of how long they have been teaching. These new policies have not yet been implemented.

D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays for what kind of in-service programmes?

In general, there is no financial support for teachers to pursue their master's degrees other than what is normally available to postsecondary students. School or district staff development activities are held on teachers' work days, thus teachers are compensated for them in their regular salaries. Some voluntary staff development activities take place during the teachers' work schedule, for which they require permission from the building principal to participate. In this case as well, because these activities are held during the teacher's regular work schedule, they are compensated for their time in their regular salaries. Funding may or may not be available to the school to pay for a substitute teacher. For staff development activities outside a teacher's regular work schedule, they may or may not be compensated, depending on the activity's sponsor. Sometimes funding is available to compensate teachers' for expenses related to travel, and sometimes funding is also available to pay the teacher a stipend for participating.

D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available to teachers?

Teachers have a variety of opportunities for professional development. They may take courses at a college or university, often as part of a program of study, such as a master's degree. The State Education Department sponsors two non-university professional development networks: the Teachers Centers, connected with the teachers' union, and the

Staff and Curriculum Development Network (SCDN). Both networks have locations throughout the state and offer a variety of professional development opportunities to teachers, ranging from one-day programs to workshops lasting several days. In addition to offering courses and workshops, Teachers Centers have resource centers with materials for teachers for research and lesson planning. The State Education Department on occasion offers special staff development activities on its own. There are also associations for teachers, including unions, but also associations for teachers of particular subjects or grade levels. These associations usually have newsletters, annual conferences, and other professional development activities.

D-1.2.4 Incentives for teachers to participate in in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?

In addition to increased knowledge and personal enrichment, which can be an incentive for all professional development activities, the most common incentives are increases in salary or job title. Teachers can often receive salary increases for participation in professional development activities. The conditions and amounts vary by district and are established in the contract the district has with the teachers' union. Administrative positions (e.g. principal) usually require participation in professional development activities beyond those required of regular teachers.

D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/voluntary in-service training provided; or teacher guides to the curriculum published etc.

In-service professional development activities are more closely aligned with state-level curriculum reforms than are pre-service activities, since the entire audience for in-service professional development is New York State classroom teachers. When it introduces curriculum change, such as with the introduction of new Standards for Learning and Curriculum Frameworks, the State Education Department usually sponsors voluntary professional development activities, either directly using its own staff, or indirectly through the Teachers' Centers, the SCDN, or grants to individual schools or districts. The State Education Department also encourages districts, schools, and teacher organizations to make the new initiatives the topics of their staff development activities.

The SED also publishes brochures, guidelines, reports, and other documents to explain the new initiatives to administrators and teachers and provide suggestions as to how they might be met. For example, with the introduction of the new Standards for Learning, the SED published the Standards, Frameworks, Performance Indicators, examples of student work that exemplifies the standards and performance indicators, and a compilation of classroom activities—submitted by teachers and reviewed by the SED—intended to help

students achieve the standards. These are available as books, over the Internet, and in some cases, as CD-ROMs.

D-2 Resource Support

D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:

- (1) Government directly sponsoring the writing, production, and distribution of text books**
- (2) Government approving a particular selection of textbooks**
- (3) The choice of textbooks entirely made by schools and/or teachers**
- (4) Other methods—please specify**

Textbooks are selected locally by teachers and administrators. The state does not require textbooks to be used, nor does it endorse privately developed textbooks and materials. However, the state's Standards for Learning, Curriculum Frameworks, and recommendations regarding instructional strategy often influence local choice of textbooks.

D-2.2 What other teaching/learning support materials are available for schools (e.g. teacher guides, video tapes, computer software, CD-ROMS etc.)?

The most common educational materials are those produced by private companies. Teachers, schools, and districts can buy materials such as textbooks, workbooks, computer software, video and audio tapes, and laboratory equipment.

Materials are also available from public sources. As described above, the SED publishes different types of materials, most often tied to current initiatives. Both the State Education Department and the United States Department of Education provide grants to organizations to develop materials which are then distributed to schools and teachers. Grant recipients may include teachers, schools, districts, teacher associations, universities and other research centers, or education-related foundations. These materials are usually provided free or at a price lower than privately produced materials.

D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise etc.)

Privately developed materials are produced as any other books, that is, based on the needs of the intended purchasers. Thus they often are based on the curricula or standards of one or more specific states. They are usually written by teachers or former teachers, university faculty, or professional textbooks writers, and reviewed by panels of educators, administrators, and subject-area specialists.

In developing the new Curriculum Frameworks and accompanying Resource Guides, the New York State Education Department convened committees of teachers and other subject-area experts. These committees developed the Performance Standards and descriptions of how students might meet these standards. They then asked teachers to submit examples of student work that met the standards and classroom activities addressing the standards. The submissions were reviewed by the committees and SED staff before inclusion in the guides.

D-2.4 How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials for the students to use; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

New York State law gives local school boards the "power and duty" to loan textbooks, free of charge, to all children in grades K-12.

D-3 Community Support

D-3.1 In your country to what extent are members of the community (for example, parents, community leaders, business people, NGOs, the religious community etc) supporting curriculum implementation? Please give specific examples.

Although the responsibility for curriculum implementation rests primarily with teachers, schools, districts, and the SED, individuals and organizations from the community can have various roles. Each school district is overseen by a board of education, whose members are usually non-educators elected by the local community. Among a board's responsibilities are establishing local graduation requirements and reviewing and approving proposals for locally developed courses. They may also be particularly active in promoting a particular curriculum initiative, such as the state's new Standards for Learning.

The members of the community with the most formal mechanisms for involvement in school policy are parents. In New York State, each school-building is required to have a Site-Based Management Team comprised of teachers and parents. The Regulations of the Commissioner grant a considerable degree of flexibility to districts and schools in determining the specific roles of the teams, thus their involvement in curriculum matters varies by school.

In addition to the Site-Based Management Teams—which have only been required since 1992—parents also have input into curriculum issues through each school's parent-teacher organization (PTO). Parent teacher organizations are not usually involved in the development of particular curricula, but may become particularly active in advocating or opposing a particular initiative or action of the Board of Education or school. The ability of PTOs to influence policy varies by school.

The business community can also take a role in advocating or opposing curriculum initiatives. Prominent business leaders will often express support or concern publicly regarding academic standards and school curriculum. For example, the Business Council of New York State has publicly supported the Regents' and Commissioner's recent initiatives to raise academic standards and to develop new curriculum frameworks.

D-4 Classroom Strategies

D-4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

New teaching approaches and strategies are usually included in the staff development activities discussed in the answer to question D-1.2.5.

D-4.2 What are the major issues and concerns about teaching methods in your country?

In New York State, the most important issue regarding instructional strategy is how to enable all students to meet the state's new standards, which increase expectations of all students. Whereas previously, taking the more challenging Regents course and examinations was a matter of student choice, under the new standards, all students will be required to pass a set of Regents examinations in the core academic areas. The SED is encouraging districts, schools, and teachers to develop innovative approaches based on each student's specific needs, abilities, and learning styles. These approaches might include providing instruction at different paces, but also using such instructional strategies as applied academics, where students learn academic material in the context of an application, such as in learning about scientific theory through the study of its application in technology.

The new assessments being developed to accompany the standards are expected to emphasize the application of knowledge as opposed to simple recall. For example, on a mathematics examination, it is expected that there will be an increase in the number of word problems requiring multi-step solutions. Thus, teachers will need to develop instructional strategies that improve students' ability to do well on these types of assessments.

One major concern, especially in districts serving large populations of low-achieving students, is whether the instructional innovations envisioned by the Board of Regents and the Commissioner of Education are possible without increased financial support for professional and curriculum development and instructional time.

D-5 School-based Student Assessment

D-5.1 Data is collected to assess students' performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc), and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

Assessment practices vary by district, school, and classroom. They include daily observation, evaluation of performance and participation in the classroom, grading of homework, evaluation of individual or group projects, and written examinations. The results of these assessments are recorded in student records such as report cards, which usually include a letter or number grade and comments from the teacher, and portfolios, which in addition to grades and teachers' comments, include samples of students' work.

One emerging issue regarding assessment methods is how to assess consistently students' thinking and reasoning, as opposed to simply their answers. New York State's new standards, curriculum frameworks, and assessments follow a nationwide trend that emphasizes problem solving skills in addition to recall of knowledge. Because assessments of students' thinking are far more subjective than assessing their ability to recall facts or use formulas, it presents a challenge to teachers to develop consistent assessment methods that allow people outside the classroom to understand the results.

D-5.2 Purposes of school-level assessments

There are many purposes for assessment at the school level. It may, for instance, be used as a diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?

The main purposes of school-level assessments are to describe to the student, parent, and future teachers the degree to which the student has acquired the skills and knowledge presented, to identify areas needing additional development, and to make decisions about grade promotion and participation and future courses. The assessments also serve as a major incentive for students to study.

D-5.3 Performance can be reported as a percentage rating (e.g. 75%, 80%, etc), grade rating: (e.g. A, B, C etc.) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

Various rating systems are used, such as percentage rating and grade rating. The systems vary by school. There are few issues regarding rating systems directly stemming from curriculum change, although as mentioned above, the emphasis on problem solving and the thinking process may result in rating systems that provide more detailed teacher comment than a single grade. Many teachers are using performance-based assessment systems that rely on "rubrics" describing different levels of student achievement. Similarly, many schools are beginning to use portfolio assessments, which may include samples of student work and comments from teachers. Comparability of such descriptive assessments is an emerging issue, particularly because of the needs of college admissions offices. Thus, descriptive assessments of student work are often translated into number or letter grades.

D-5.4 External examination system

Does your country have any external examination system? If so, at what levels(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (e.g. how it might influence the aims/goals of the planned curriculum).

In the elementary and lower secondary levels, mandatory statewide tests are given to each student in every school in reading and mathematics in the third grade, writing in the fifth grade, reading and mathematics in the sixth grade, in social studies and science by the end of the sixth grade, and in social studies in grade eight. The reading, writing, and mathematics assessments are designed to assess student performance. Students scoring below designated state reference points must receive remedial instruction. The social studies and science assessments are designed to assess programs, thus have no state reference points for student performance.

In the secondary grades, there are statewide Regents examinations for 16 courses in core academic subject areas. State graduation requirements include requirements for passing Regents examinations. Currently, students not taking Regents classes must pass lower-level competency examinations in the core academic subjects. These competency examinations, however, are being phased out. All students entering the ninth grade in the year 2000 and after will be required to pass a set of Regents examinations in order to graduate.

All of the statewide examinations have very direct impacts upon classroom curriculum. Because teachers must prepare students to pass these examinations, their curricula will be based in large part upon the content of the examinations, which are based on the state's curriculum frameworks.

D-6 Barriers and Constraints to Effective Curriculum Implementation

D-6.1 Briefly describe the difficulties/ barriers that have been identified as constraints to effective curriculum implementation in your country.

The state's new goals for curriculum involve all students taking more rigorous courses and achieving at higher levels, with an emphasis on problem solving skills and ability to apply knowledge. Naturally, there are many challenges associated with this goal. Because these higher standards require significant professional development and curriculum development activities for teachers, finding the time and the money for these activities will be a major challenge. Finding sufficient time will also be a challenge if achieving the state's goals requires more instruction based on each student's individual needs, abilities, and learning styles, as many claim they will.

Because districts can vary widely in the financial resources available to support reform and the percentage of the student population for whom achieving higher standards represents a significant challenge, some districts will have less difficulty in meeting the goals of the state's reform initiative than others. For example, a district with substantial resources for staff and curriculum development and a large percentage of students already pursuing a Regents diploma (as is typical of many suburban districts) is likely to face far fewer obstacles than a district with fewer financial resources and traditionally large numbers of students pursuing local diplomas (as is typical of many urban districts).

Another major obstacle is reluctance on the part of districts, schools, and teachers to follow the standards. One major cause of resistance involves the expected time, effort, and money required to implement the standards coupled with skepticism that the new standards will result in significant changes in the state assessment system. If there are no significant changes in the state assessments—in most cases the only way school and student performance is monitored from the outside—then not following the new standards will not adversely affect a school. Thus, if a district or school is reluctant to devote the resources to implementing change, it is possible they may suffer no consequences.

Section E: Curriculum Monitoring and Evaluation

E-1 Monitoring and Evaluation

E-1.1 What processes are used to monitor curriculum implementation in your country?

Although the SED sponsors numerous activities, such as conferences and workshops, to explain the Standards and the Frameworks, there are no regularly scheduled activities to monitor or evaluate the degree to which the new Standards and Frameworks are being implemented.

E-2 Curriculum evaluation

E-2.1 Please describe the mechanisms/ major tools used in your country for curriculum evaluation?

There are no formal mechanisms at the state level for the evaluation of the effectiveness of school curricula or state curriculum frameworks. The frameworks were developed by curriculum panels of teachers, other educators, and subject area specialists based on a review of current standards and practices in light of prominent national and state-level curriculum reports, such as the National Council of Teachers of Mathematics' *Curriculum and Evaluation Standards for School Mathematics*.

E-2.2 How are the results of the national curriculum evaluation used in your country? For example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.

Not applicable.

E-3 Monitoring of Local Curriculum

E-3.1 Does a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?

With the exception of cases such as bilingual education and vocational education, where the state provides funding to districts specifically for these programs, the SED has no regular mechanisms for the direct monitoring of curriculum implementation at the district and school level. There are several exceptions, however. The SED does review proposals for locally developed courses that will be used to meet graduation requirements, or which the school is proposing as an alternative to a Regents course. Districts and schools can invite SED staff to review their curricula to ensure it is consistent with the Standards and the Frameworks. The SED also becomes involved in curriculum monitoring in the cases of Schools Under Registration Review (SURR schools), schools with extremely low levels of student achievement; and in cases where a complaint (most often from parents) is brought to the SED regarding the content of a course at an individual school. In these cases, SED staff may become involved in reviewing and commenting on a schools' curriculum, especially regarding whether it is consistent with the state's Standards for Learning.

E-4 Student Assessment for Curriculum Monitoring

E-4.1 What types of assessments are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.

As described in D-5.4, mandatory statewide tests are given annually at the elementary, lower secondary, and upper secondary levels. (Several Regents examinations are given at least twice a year.) Even in cases where the primary purpose of the examination is to assess student achievement, examination results are reported at the school level and are often used to make judgments about the effectiveness of the school, teacher, or curriculum. However, the results of the examinations are influenced by many other factors not related to curriculum, such as teacher quality, student background, etc.

E-5 Research and Curriculum Development

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

In New York State, there have been no major studies describing the impact of state curriculum policy on the quality of education. Rather, the Regents and the Commissioner have responded to a general sense among the public, educators, and business leaders that standards for student achievement need to be raised. Their curriculum policies have been guided by the recommendations of the various committees they have convened, such as the Curriculum and Assessment Council, and the recommendations of various national-level organizations, such as the National Council of Teachers of Mathematics, and the Secretary of Labor's Commission on Achieving Necessary Skills.

Uzbekistan

Abdujabar Abduvakhitov

Section A: Background Information

The purpose of this section of the questionnaire is to collect general information about your country and its education system. Please provide the following information on your country, using 1998 figures or elsethose that are most resently available (please indicate year)/

A-1. General information

A-1.1 Size of population

Year (1.01.97, thousands)

Total	Annual population growth rate
23655.6	1.9%

A-2.2 Indicate the total number of children/youth in the following age groups, using the latest available data

year (1.01.97)

Age Group	Males	Females	Total
0-4yrs	1658.0	1581.1	3239.1
5-9yrs	1651.0	1596.2	3247.2
10-14yrs	1471.1	1443.4	2914.5
15-19yrs	1195.7	1175.0	2370.7

NATIONALITY	(1998 year) total	%
uzbeks	18361.8	77.2
russians	1244.3	5.2
tajiks	1145.9	4.8
kazakhs	957.2	4
tatars	324.2	1.4
kirgizs	212.8	0.9
ukrains	113.4	0.5
turkmens	141.4	0.6
jewishs	15.6	0.1
armenians	46	0.2

A-1.3 Indicate the major ethnic and language groups in your country, as a percentage of total population

Ethnic group	%
uzbeks	77.2
russian	5.2
tajiks	4.8
kazakhs	4
tatars	1.4
kirgizs	0.9
ukrains	0.5
turkmens	0.6
jewishs	0.1

Language group	%
uzbeks	77.2
russian	5.2
tajiks	4.8
kazakhs	4
tatars	1.4
kirgizs	0.9
ukrains	0.5
turkmens	0.6
jewishs	0.1

A-1.4 List the major religious groups in your country

A-1.5 State the annual public expenditure on education: total and as a percentage of GNP (in \$US)

A-1.6 Language

A-1.6.1 What is the national and/or official language(s) of your country?

State language - Uzbek, international contact language - Russian.

A-1.6.2 If your country have several official languages, how is this matter addressed in the school curriculum? For example, what is the language or languages of instruction, and which of these official language(s) are taught and at what levels?

Study language	total number		pupils (thous)
	monolingualistic	bilingualistic	
uzbek	7396	825	4540.3
kharakhalpakh	244	126	147.0
turkmen	39	27	18.0
tajik	223	116	142.2
kirgiz	31	32	13.4
khazakh	283	319	165.7
russian	184	636	397.2
total	8400	-	5423.8

A-2. The Educational system

A-2.1 Structure year ()

In accordance to the new Law on Education and the National Programme of the Personnel Training System of Uzbekistan the educational system is experiencing great

changes. Therefore, bellow are provided data on former system and new implementing structure.

Level	Duration in years	Age range	Population			Percentage of relevant age group attending school			Compulsory or not compulso
			Males	Females	Total	Males	Females	Total	
Pre-school						%	%	%	
Elementary or Primary	1-4 classes		1283274	1235442	2518716	%	%	%	comp
Lower Secondary	5-9 classes		1170669	1152346	2323015	%	%	%	comp
Upper Secondary	10-11clas		275809	273633	549442	%	%	%	not comp

If possible, attach a diagram of the school educational system in your country.

The studying year of 1998-1999 is experimental year. New system is under approbation when new Curricula and study programs are being developed. In the next year the implementation of the new system will start. **The new system includes:**

1. Pre-school Education
2. General Secondary Education 1st-9th form

General Education also includes:

- Primary Education 1st-4th form
- 3. Secondary Specialized and Vocational Education 1-3 year

It could be obtained through:

- Academic Lyceums
- Professional Colleges

So starting from next year compulsory education in Uzbekistan is going to be 12 years.

A-2.2 Class size

Level	Average class size
Elementary/Primary	23.86 pupils
Lower Secondary	24.85 pup
Upper Secondary	22.27 pupils

A-2.3 Teachers

Level	Number of Classroom Teachers			teach/pupil
	Males	Females	Total	
Elementary/Primary	18890	100449	119339	1/22
Lower Secondary	143985	172070	316055	1/9
Upper Secondary	162875	272519	435394	1/13

Data of A-2.1-A2.3 concern only the Ministry of public education.

A-2.4 Number of Schools

Level	Government	Private	Other - please specify	Total
Elementary/Primary	201			
Lower Secondary	1840			
Upper	6837			
Secondary				
- General				
- Vocational				
- Specialized				
-Others (please specify)lyseums gymnasiums	334 190			
- Total				

A-2.5 Specific School Information

	Primary	Secondary	
		Lower	Upper
Number of school days per year for students	1 class 33	2-11 classes	34 weeks
Division of school year e.g. quarter, semester	1 quart - 2 Oct-3Nov		
Number of instruction days per week			
Teachers' average number of class contact hours per week	14 hours	16 hours	16 hours
Time duration per teaching period (in minutes)	40-45 min	40-45 min	

A-3. Any other relevant background information

Please provide here any other background information that will assist in the interpretation of your country response.

Division of classes

total	1 st part	2 nd class	3 rd class
9543 schools	3155	6299	89
5418079	3925680	1478631	13768
100%	72.4%	27.3%	0.3%

Section B: Curriculum policies

During the last decade various efforts have been made in each country to revamp their education systems to bring them into line with social, economic, political and cultural change in the country. These educational changes are reflected in national educational policies and the curricula framework. The main purpose of this section of the questionnaire is to obtain information on this dimension and on the process of curriculum development and change in your country.

B-1. Background

B-1.1 In what ways, if any, are the social/economic/political/cultural contexts of your country reflected in its curriculum policies? Please, provide up to three specific examples to illustrate your answer.

A. In 1998 Uzbekistan is experimentally probing new educational standards, curriculums, and programs. When they were developed many factors were taken into consideration: level of social and economic development of the country, psychological and physiological features of learners, and etc. Notion of pre-school education changed greatly. It used to be conceived as system helping parents take care of children. The new concept stresses that pre-school education should be a stage of children preparation to school. In this respect new programs, tightly bounded with school program, have been developed and implemented in kindergartens. The Economy demands bringing new specialist taught in the secondary specialized education: farm economy, tax inspection and customs staff, audit etc.

B-1.2 Give a brief overview of the educational goals/aims for the compulsory education sector in your country.

A. Pre-school Education aimed to create a healthy and sound character, prepared to study at school. General Education has two phases: Primary Education (1-4 form) and General Secondary Education (1-9 form). Primary Education aimed to form basics of literacy, knowledge and skills required to receive secondary education. General Secondary Education (1-9 form) shall lay the foundation of knowledge, develop independent thinking, leadership and expertise, shall develop professional orientation and choices for the continuing education. Secondary Specialized and Vocational Education aims to in-depth development of professional choices, abilities and skills of students, preparing them for one or more specialization of a chosen profession.

B-1.3 What regulations govern curriculum policies in your country? For example, indicate the specific laws and provisions that give direction to curriculum documents as related to the framework, courses/programs, time allocation for each subject, teaching-learning activities, textbooks, assessment, methods for recording achievement, teacher education requirements and the like. Indicate whether or not these regulations are mandatory for all schools.

- A. The regulations concerning curriculum policies in Uzbekistan are given first of all in the *Law on Education, the National Programme of the Personnel Training System* as well as Decrees of the Cabinet of Ministers (Government) of Uzbekistan on *Educational Standards in the System of Continuous Education*, #5, January 5, 1998, and on *Organization of the General Secondary Education*, # 203, May 13, 1998. On the basis of these regulations *State Educational Standards of the General Secondary Education* were developed and now are being implemented, and probated. It is a regulatory document mandatory for all types of educational institutions of the General Secondary education.

B-2. Curriculum change

B-2.1 Briefly describe the major changes in the national school curriculum that have occurred in your country over the past five to ten years. Give the reasons for these changes.

- A. After gaining the Independence Uzbekistan faces new challenges especially in the transition to market economy system and new state building. Therefore in the secondary specialized education new specialties are taught: farm economy, tax inspection and customs staff training, audit etc. In the Higher School new courses are implemented in order to raise ideological and moral level of students as well as their methodological and theoretical capacity. These are: *Principles of Spirituality and Enlightenment, Human Rights, Practicable Economy, Social Nature of Religious Extremism and fundamentalism*, and etc.

B-2.2 What changes, if any, are likely to occur in the national school curriculum in the next five to ten years? That is, what is the general direction for on-going curriculum reform? What aspects does your country consider to be the most important for curriculum development in the next five to ten years, such as: globalisation; information technology; communication; and national/cultural identity?

- A. In the next ten years Uzbekistan will fundamentally reform entire educational system, the complete reversal of its ideological routine, will complete on-going curriculum reform up to the level of advanced democratic states. In the 1997-2001 the State Educational Standards will be further improved, corrected, and inculcated. The new Educational Methodological Basis, didactic and information supplies, curriculums, and etc. will be elaborated and inculcated. The new rating system of students assessment will be elaborated and implemented. In the next 2001-2005 years the transition to the compulsory General Secondary and Secondary Special, Vocational training will be completed. The Republic of Uzbekistan considers that informatization of the educational system along with national identity are the most important aspects for the next ten years.

B-3. Curriculum development process

B-3.1 Is your country's system of curriculum development centralized, partially centralized or

decentralized? Please explain your answer.

A. The system of curriculum development in Uzbekistan is centralized and maintained in accordance with State Standards and regulations.

B-3.2 Who is responsible for initiating curriculum development in your country? Specify the various agencies who may be involved in this development and their specific/major roles (for example, central government, local government, teacher associations, research institutes, parents, non-governmental agencies, private companies, etc.).

A. The biggest responsibility for the initiating curriculum development in Uzbekistan lays on the respective educational ministries: the People's Education Ministry and Ministry of Higher education. They are responsible for identification shortcomings and advantages of the existing system and present them to the Government. Research institutions do actual elaboration of new approaches and strategies for government entities.

B-3.3 In what ways are the view points of different groups (such as professional and other stakeholders, participation of parents, teachers, students, etc.) accommodated in the decision making processes? Please give some recent specific examples.

A. The educational institutions have their local organizations on every administrative level (region, district). They permanently monitor work of educational establishments. In the meantime new Educational Standard of the Secondary Education, Curriculums and Programs are being gradually implemented in the schools of Uzbekistan. For this purpose best schools were selected to act as experimental areas. All research and educational personnel is involved into the process as well as students and other stakeholders. These experimental areas make frequent presentations to publicize their achievements.

B-3.4 In what way does national and/or local curriculum policy promote unity/cultural diversity in your country? Please give specific examples to illustrate your answer.

A. Uzbekistan is multinational Republic. Its major Ethnic groups are Uzbeks, Karakalpaks, Turkmen, Tajik, Kirgiz, Kazakh, and Russians. While the national or official language of Uzbekistan is Uzbek, Russian language remains the Language of Interethnic Dialogue. Every Ethnic Group has a right to teach its children in own language. Children in these schools are taught using textbooks delivered from respective republic.

B-3.5 Is any particular provision made for children with special needs, within the curriculum policy of your country, based upon such characteristics as intellectual ability, physical disability, gender, socio-economic background, and ethnicity? Please provide specific examples.

- A. Some special measures are made for children with specific needs. There are about 80 special schools for children with such disabilities as deafness, blindness, and etc. These schools are provided with specific textbooks and methodology. There are also number of ethnic schools: Uzbek (8221), Karakalpak (370), Turkmen (66), Tajik (339), Kirgiz (63), Kazakh (602), and Russian (880). Children with extra interests have an opportunity to study in the special improved courses taught by school teachers. No gender or socio-economic application on the curriculum is made in Uzbekistan.

Section C: Curriculum Design

Every country has to make decisions regarding the overall approach to curriculum design as well as to the subject areas that will be included in the school curriculum. This section aims to describe the school curriculum in each country.

C-1. Curriculum organization

C-1.1 Describe the basic approach to curriculum design in your country. For example, content/topic based, competency-based, outcomes based, or other. If a combination of approaches is being used please provide background information on this matter.

A. Curriculum design in Uzbekistan old educational system was developed using content based approach. The main goal was to provide student with set of knowledge that could be useful in his life. This approach proved inadequate even in the old Soviet system. Being independent, and preceding progressively to market economy, Uzbekistan has to rely mainly on its own labor resources. On the other hand only 28% of secondary school graduates can enter either professional and vocational school or higher education institution. About 72% of secondary school graduates are left without any possibility to obtain some profession. Therefore new educational system approach is outcome based. Its end outcome is a person mastering some specialty and capable to longlife improve his skills meeting inevitable changes within the market economy country.

C-1.2 Please describe whether your curriculum is mainly designed to:

- be implemented by teachers as written OR;
- be interpreted by teachers and implemented with variations OR;
- give teachers total freedom to create the curriculum OR;
- some combination of the above.

Please give examples to illustrate your answer.

A. The Curriculum main features are provided by the Basic Curriculum given in the State Educational Standards. There is a Deputy Principal in each school responsible for curriculum design. He has to do it according to the Basic Curriculum although he has some freedom to include or exclude some courses. Teacher is not involved into curriculum design. He is implementing it as written. Written Curriculum goes to District Department of the Ministry of Peoples Education for confirmation.

C-1.3 Basic structure of the current and/or future school curriculum

Please give the range of subjects offered in your country in years 1 - 9/ grades 1 to 9, giving specific information on the following matters:

- indicate what subjects are compulsory or optional;
- indicate the time allocation for each subject (inhours per year). Note - if your country does not have a pre-set time allocation either estimate or state 'not available';
- How many hours a week are allocated to co-curricula (or extra curricula) activities? Are these compulsory or elective?

New Basic School Curriculum

	Subject	Grade/Year								
		1	2	3	4	5	6	7	8	9
Compulsory	State Language or Russian Language for Uzbek Schools instead of State Uzbek Language		68	102	102	102	102	102	102	102
	Native Language and Literature	264	272	340	340	309	238	170	170	170
	Foreign Language					102	102	102	102	102
	History					68	68	102	102	102
	Basics of State Building and Legal Studies								34	34
	Basics of Economics								34	34
	Mathematics	165	170	170	170	170	170	170	170	170
	Computer Science								34	68
	Physics						68	68	68	68
	Chemistry							68	68	68
	Biology						68	68	68	68
	Basic Knowledge of a Nature and Geography	33	34	34	34	68	68	68	68	68
	Plotting								34	34
	Fine Arts	33	34	34	34	34	34	34		
	Music	33	34	34	34	34	34	34		
	Applied Skills	33	34	34	34	68	68	68	34	34
	Physical Education(exercises)	66	68	68	68	68	68	68	68	68
	Ethics	33	34	34	34					
Optional	Russian Language for Non-Russian Schools as Foreign Language					102	102	102	102	102
	Courses considered by local governm. essential for socio-economic development of a region	66	68	68	68	68	68	68	68	68
	Total	726	816	918	918	1193	1258	1292	1326	1360

C-1.4 Integration

When the NIER survey on curriculum was undertaken ten years ago, curriculum integration was identified as a key issue and concern. In that earlier survey integration was viewed as a continuum. At one hand of the continuum was combining the knowledge of several subjects with similar features into one subject area while at the other end was an interdisciplinary approach to integration through the organization of the content and teaching-learning process around themes.

Is curriculum integration still a major issue in your country? Please give specific examples to illustrate your answer.

A. Subjects with similar features are combined in Uzbekistan education, especially Primary education, into one course. There are number of integrated courses such as: 'Basics of Environmental Sciences', 'Mathematics and Designing, and 'Fine and Applied Arts'.

C-1.5 Specific curriculum areas

A number of countries are introducing specific themes/special areas of focus into their curriculum, such as those listed below. Please indicate how your curriculum deals with these areas (e.g. as a separate subject area, as an integrated area, at what level of schooling they are taught, etc.).

Themes/Areas	How your Curriculum deals with the theme/area	Level of Schooling
values/in-ternational understanding (e.g. moral/ethical issues etc.)	These themes are covered within the Educational area called the Arts. This Educational area occupies 7.4% of whole amount of hours allocated for entire Basic Curriculum (BC). These are separate subjects of: • Fine Arts, (2.8% of BC) • Music, and (2.8% of BC) • Ethics (1.6% of BC)	• 1-7 grades • 1-7 grades • 1-4 grades
education for the world of work	1. Professional education of the General Secondary Education is implemented within the Applied Skills Educational Area. It occupies 5.0% of hours of Basic Curriculum. It comprises following courses: • Mathematics and Designing (integrated course) • Fine and Applied Arts (integrated course) • Domestic Economy (integrated) • Domestic Culture • Art - decorative workmanship (integrated course) • Technical workmanship • Art processing of metal • Professional orientation and practice in- and out of school	1. It is implemented throughout entire General Secondary Education (1-9 grades) • Prim. Ed. • Prim. Ed. • 5-7 grades • 5-7 grades • 5-7 • 5-7 • 5-7 • 5-8 grades

Themes/Areas	How your Curriculum deals with the theme/area	Level of Schooling
education for the world of work	2. Three upper secondary compulsory years of study in Academic Lyceums and Professional Colleges are devoted to professionally oriented education in the former and training to one or several specialties in the later	2. Secondary Special or Professional Education (10-12 years)
foreign languages	Foreign languages are taught within Philology Educational Area which occupies 41.1% of hours of the Basic Curriculum. Foreign languages occupy 13.7% of BC time allocation. In Uzbek schools Russian language is taught instead of State language.	From 5-9 grades
computer/information technology	Information technology course occupies 1.3% of BC time allocation	from 8-9 grades
health education (e.g. diet, drugs, HIV/Aids)	Physical education except physical exercises covers such areas as Personal Hygiene, and Diet and occupies 7.4% of BC time	1-9 grades
environmental education	Environmental education is delivered to learners through the Knowledge of a Nature Educational Area. It occupies 14.7% of BC allocated time and includes such courses as: • Basic Knowledge of a Nature(2.5%) (integrated course) • Geography (3.3%) • Biology (3.3%) • Chemistry (2.5%) • Physics (3.3%)	from 1-9 grades • 1-4 grades • 5-9 grades • 6-9 grades • 7-9 grades • 6-9 grades

C-1.6 Curriculum coverage

In designing the curriculum, countries need to make decisions about the breadth and depth of subject contents and approaches. Some countries believe that the General education provided in their school system requires students to cover too many subject areas. There are pressures, also, to add new subject areas such as environmental studies; international understanding; information technology, etc. Other countries are concerned about the number of subjects that students are required to study either because of the pressure this puts on students or because it means that subjects are approached in a way that does not lead to a depth of understanding or to the fostering of creative and critical thinking. There is also concern that overcrowding of the curriculum is being caused by the fact that schools are being asked to take responsibility for a wide range of social issues that were once viewed as the responsibility of families or the community as a whole (for example, appropriate behavior, personal etiquette, etc.).

C-1.6.1 What are the issues in your country with regard to pressure on the coverage of the curriculum?

A. What are the issues in your country with regard to pressure on the coverage of the curriculum?

Uzbekistan is now in the transition to the new mode of economy. This requires big changes in the priorities of education. In new economic environment school graduates need basic knowledge in economics, and legal issues. Independent Uzbekistan have to train high school students to some specialties in order to provide them essential means they can use for living after graduation.

C-1.6.2. What steps, if any, are being taken to address these concerns?

A. The general trend is to increase number of subjects taught in the school. During the last five years new courses were added to the curriculum in order to meet changes in the society, namely Basics of State Building and Legal Studies, Basics of Economics, Ethics, etc.

In the Secondary Special or Professional Education many new courses are being developed.

Section D: Curriculum Implementation

Unless there are effective strategies for the implementation of curriculum policies, an education system does not derive the full benefits that should accrue from the school curriculum. This section of the questionnaire seeks responses to key aspects which are critical for curriculum implementation: teacher development; resource provision; classroom strategies and student assessment.

D-1. Teacher Professional Development

A good curriculum will simply remain a curriculum on paper if it is not implemented properly. The teacher and the instructional leaders in the school are the key to the implementation of that curriculum. The questions below seek to find out how teachers in your country are prepared professionally for teaching, and the programs available for their continuous professional development.

D-1.1 Pre-service teacher development

D-1.1.1 Does your country require a pre-service teacher education qualification for those who wish to teach in the school sector?

A. Yes, it does. Teachers of General Secondary Education level (from 5-9 grades), Lyceums, and Colleges must be higher educated specialists. More than 73% of the teachers are graduates of the higher educational institutions. Teachers of primary education could be professional pedagogical college graduates with secondary specialized education or graduates of pedagogical institutes with higher education. In practice sometimes even secondary school graduates teach in primary schools because of lack of educated specialists and because primary education was considered as unimportant one. Now the attitude towards primary education is changed and state requires at least professional college education for the teacher.

D-1.1.2 Is there a prescribed national curriculum/guidelines/framework for pre-service teacher education in your country?

- A. Yes, there is. The state has a set of criteria for curricula of the higher pedagogical and other educational institutions, the State Standards. Each University/college/institute has a special department responsible for curricula design called 'Educational Division'. It sends designed curriculum to the respective Ministry which checks if it corresponds with the criteria and approves it.

D-I.1.3 What is your country's programme for pre-service teacher development?

Level of Teacher	Title/Length of Program	Type of Institution	Minimum entry requirement
Primary	Bachelor/ 3 years 4 years	College Institute	30% out of 226 grades(1998)
Lower Secondary	Bachelor/ 4-5 years	Institute/University	30% out of 226 grades(1998)
Upper Secondary	Bachelor/ 4-5 years	Institute/University	30% out of 226 grades(1998)

D-I. 1.4 Pre-service teacher education programmes usually include components of education foundations (e.g. sociology of education, history of education); general methods courses(e.g. educational technology, classroom management, assessment); subject content courses; specific methods courses (e.g. mathematics education, science education); and teaching practicum. Please describe the general components of the pre-service teacher education programme in your country.

- A. In the Uzbekistan basic curriculum these components are called 'Sections'. There are such general sections as:

1. Humanities and General Socio-economic Subjects (includes the Linguistics, Modern Uzbek Language, History, Literature, Foreign Language, Ethics, Physical Culture, Philosophy, Physiology, Sociology, Economics, Political Sciences, Esthetics, Political Economy, Principles of Law, Legal Studies, etc.)
2. General Mathematical and Scientific Subjects (it includes Higher Mathematics, Computer Science, Physics, Chemistry, Environmental Subjects)
3. General Education and Professional Subjects (Descriptive geometry and Engineering Graphics, Safety of habitability, Basics of Management, Metrology and Standards, Electronics, Computer Science, Database, etc.)
4. Major Subject courses
5. Additional Subjects(Military training, etc.)
6. Teaching practicum

Changes in the National school curriculum over time. What measures are taken in your country, if any, to ensure that pre-service teacher education programmes keep up with changes in school curriculum and other areas of change in education? Please give specific examples to illustrate your answer.

A. Each University/college/institute has a special department responsible for curricula design called 'Educational Division'. It designs curricula for the institution according to the State Standards and sends them to the respective Ministry which checks if they correspond with the criteria and approves. In case if they do not meet standards they are sent back for further improvement.

D-1.2 In-service teacher development programmes

D-1.2.1 Is in-service professional development for teachers compulsory or voluntary? If in-service development is compulsory are there a minimum number of hours required per year?

A. In-service professional development for teachers is compulsory. There is a special Institution responsible for its implementation. No minimum number of hours per year are required, however, there is a schedule according to which teachers must study on such a courses once a period. Usually once a five years. This process is monitored by regional and district departments of the Ministry of Peoples Education.

D-1.2.2 Is there any financial support for teachers for their in-service professional development? If so, who pays and for what kind of in-service programmes?

A. All kinds of teachers professional development are paid either from state budget or by Non-government organizations (*Ustoz* Republican Foundation).

D-1.2.3 Countries report a variety of ways that teachers use to improve their practice. For example, teacher association meetings, group study, professional reading, interest courses, distance learning, part time study. In your country, what professional development opportunities, if any, are available for teachers?

A. In Uzbekistan teachers education improvement is implemented in the following ways:

- Full time study. It is main approach used in our country. It is implemented in the Institutes or Faculties of Teacher's Qualification Improvement through short-term mostly one month seminars once a five years. In Uzbekistan exist 23 such institutes, 16 faculties, 4 centers, and 14 special courses (statistics of 1997).
- Open lesson. This approach allows colleagues to attend lesson of a teacher in order to learn how he organize learning students process and share his educational technics and approaches.
- Improvement supported by non-government organizations. For example, by *Ustoz* Foundation that enables teachers winners of Open Competition to study educational methodology and technology in the developed countries.

D-1.2.4 Incentives for teachers to participate in-service training vary. For example, personal enrichment, promotion/salary increase, qualifications improvement, increased

knowledge and the sharing of ideas. What are the motivating factors and incentives for participating in in-service training?

A. Participation in in-service training is motivated mostly by the opportunity to increase knowledge, improve qualification, and sharing of ideas (Open Lessons). Because it is mostly planned training for all it does not influence career building or salary increase. However, personal enrichment is essential factor motivating training for teacher often privately work as students tutors.

D-1.2.5 A number of countries report rapid curriculum change. What are the strategies being used for in-service training to ensure that teachers effectively implement new curriculum initiatives in schools. For example, is compulsory/voluntary in-service training provided; or teacher guides to the curriculum published etc.

A. In the meantime new Educational Standard of the Secondary Education, *Curricula* and Programs are being gradually implemented in the schools of Uzbekistan. For this purpose best schools were selected to act as experimental areas. All research and educational personnel is involved into the process as well as students and other stakeholders. These experimental areas make frequent presentations to publicize their achievements.

Secondly, all information concerning curriculum changes is published in special teachers newspaper *Ma'rifat*.

Thirdly, *Ustoz* Foundation organizes groups of teachers who study these issues in the developed countries during short-terms seminars and in in-country seminars.

Finally, teachers are trained compulsory in the Institutes of Teacher's Qualification Improvement.

D-2. Resource Support

Countries are using a diverse range of materials to support the implementation of new curricula. Material support of various kinds may assist in the provision of information for students, provide a guide to teachers and assist teachers in implementing effective classroom programmes that actively involve the students in learning. This material support may take various forms such as: textbooks, videos, computer software, calculators, equipment and apparatus, multimedia teacher guides and CD Roms. The following questions are designed to find out the kinds of support materials countries are currently using to assist teachers implement curriculum change.

D-2.1 Countries use a variety of ways for the development and supply of textbooks to effectively support the implementation of the curriculum. Examples include:

- (1) Government directly sponsoring the writing, production, and distribution of text books
- (2) Government approving a particular selection of textbooks
- (3) The choice of textbooks entirely made by schools and/or teachers
- (4) Other methods - please specify.

Please indicate which of the above apply to your country.

A. (1) Government directly sponsoring the writing, production, and distribution of text books

D-2.2 What other teaching/learning support materials are available for schools (e.g. teacher guides, video tapes, computer software, CD-ROMs etc.)

A. Teachers obtain from local departments of Ministry of People's Education only hard copy of the Guides.

D-2.3 Please describe the process involved in your country for the development of supplementary materials that assist in curriculum implementation? (For example, those developed by Government, private enterprise etc.)

A. All materials are developed by the Ministry of People's Education and its institutions. Professors of Universities and scholars of the Academy of Sciences are also involved in this process. Almost all these institutions are Government or shared with Government companies.

D-2.4 How are textbooks and other materials provided to students? For example: parents buy the textbooks; government provides the materials on a loan basis; parents pay for the rent of textbooks etc.

A. Parents buy the textbooks.

D-3. Community Support

D-3.1 In your country in what extend are members of the community (for example, parents, community leaders, business people, NGO's, the religious community etc.) supporting curriculum implementation? Please give specific examples.

A. Community does not participate in curriculum implementation or support. The only NGO that does support curriculum implementation is *Ustoz* Republican Foundation. *Ustoz* Foundation enables teachers winners of its Open Competition to study educational methodology and technology in the developed countries. Apart from this it organizes groups of teachers who study these issues, curricula, and educational process in the developed countries during short-terms seminars and in in-country seminars totally or partly backed by *Ustoz*. It is introducing samples of the curricula and learning software of the developed countries to Uzbekistan. Foundation is organizing computer classes with access to world informational systems and seeks to arrange distance learning accessible to teachers.

D-4. Classroom Strategies

So far the questionnaire has been concerned about the implementation of the planned curriculum. However, the teaching methods employed also have a critical influence on curriculum implementation.

D-4.1 What strategies are employed in your country to introduce teachers to new teaching approaches/strategies to support the aims/goals of the curriculum?

A. In Uzbekistan teachers are introduced to new educational methodology and technology compulsory (1) in the Institutes of Teacher's Qualification Improvement; (2) *Ustoz* Foundation organizes groups of teachers who study these issues in the developed countries during short-terms seminars and in in-country seminars. It also issues frequently press-release mainly devoted to the teaching approaches and technics.

D-4.2 What are the major issues and concerns about teaching methods in your country?

A. Educational technology is the major issue in Uzbekistan. Schools virtually do not possess computers or any other technology. Teacher cannot use computer and other technology. Lack of technology leads to lack of possibilities to use new computer based methodologies.

D-5. School-based Student Assessment

A key issue for the effective implementation of the curriculum involves students and their learning at the school level. Countries use a variety of strategies to assess student learning. School based assessment provides feedback to teachers with respect to the effectiveness of their teaching, and provides students and parents with essential information about student progress.

D-5.1 Data is collected to assess students' performance in various ways; including the following: paper-pencil tests, portfolio assessment, practical work (such as laboratory activities in science, production of items in technology etc.), and by direct observation. How is classroom assessment data collected on the performance of each student in your country? Please describe any emerging issues in your country regarding methods of student assessment with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

A. Presently data is collected using paper-pencil tests, laboratory work, and observation. Uzbekistan is implementing new system of assessment reflecting curricula and students knowledge.

D-5.2 There are many purposes for assessment at the school level. It may, for instance, be used as diagnosis of the learning that has occurred; it may be assessment for promotion to the next grade; or it may be used for reporting to parents. In your country what are the main purpose(s) of assessment at the school level?

- A. The assessment in Uzbekistan is mostly used for evaluation level of student's learning. The second purpose is promotion to the next grade

D-5.3 Performance can be reported as a percentage rating (e.g. 75%, 80%, etc.), grade rating: (e.g. A, B, C, etc.) and as a description of accomplishments. In your country, how is student performance rated? Please describe any issues in your country about methods of reporting students performance with respect to curriculum change (e.g. any current change in practice in line with changing focus on the curriculum).

- A. Old system of assessment was based grade rating (e.g. 1,2,3,4,5) from 1, lowest mark, through 5, highest mark. Presently Uzbekistan is implementing new system, which reflects curricula and students knowledge. It is based on percentage rating (from 54%-100%), though it reflects how many hour have a course been taught during the week.

D-5.4 Does your country have any external examination system? If so, at what level(s). If you do have an external examination system, please comment on its impact on the implementation of the school curriculum (e.g. how it might influence the aims/goals of the planned curriculum).

- A. Yes, it does. There is the Test Center in all regions of Uzbekistan. It functions mostly for institutes or universities entrance tests. However, when new rating system will be implemented in secondary school it will serve its purposes as well.

D-6. Barriers and Constrains to Effective Curriculum Implementation

The effective implementation of curriculum is dependent on a multitude of factors. Countries report that difficulties/barriers that have been identified as constrains to effective curriculum implementation include: inadequate support instructional materials; large class sizes; language of instruction; out-of-date materials; teachers qualifications, teacher availability; teachers knowledge, skills and attitudes; and the performance of teachers and principals.

D-6.1 Briefly describe the difficulties/barriers that have been identified as constraints to effective curriculum implementation in your country.

- A. Difficulties/barriers are:

- lack of instructional materials, teacher guides
- out-of-date materials or their ideological orientation. They are mostly Communism oriented Marxist textbooks or teachers guides.
- lack of educated teachers. Schools of Uzbekistan have 93% of teachers needed (statistics of 1997) in some regions even 77-80%, and 50% on some specific subjects.
- language of instructions. Some textbooks are only in Russian. There is no dictionaries fro and to Uzbek language.
- teachers qualification is low especially in primary education considered previously as unimportant. In general quality of pedagogical institutes was very low.

- teachers skills and attitudes. Teacher still behaves in a classroom as dictator. There is no democracy and choice for students at all.

Section E: Curriculum Monitoring and Evaluation

The main purpose of this section of the questionnaire is to find out whether any program of curriculum evaluation is in operation in your country and how curricula are revised. It needs to be noted that this section is devoted to overall curriculum evaluation and not to individual students evaluation which has been covered in Section D.

E-1. Monitoring and Evaluation

There are number of ways in which the curriculum can be monitored and evaluated. For example, monitoring visits by supervisors/inspectors, consultative assemblies and curriculum conferences.

E-1.1 What processes are used to monitor curriculum implementation in your country?

A. Curricula in Uzbekistan is monitored through Open Lessons visited by officer of local department of the Ministry of People's Education, or by colleagues. Presently to evaluate new curricula pilot studies are used.

E-2. Curriculum Evaluation

Countries have a variety of strategies for curriculum evaluation such as: analysis of curriculum documents with respect to policy statements; validation conferences with relevant stakeholders; and pilot studies in a few school settings.

E-2.1 Please describe the mechanisms/major tools used in your country for curriculum evaluation?

A. Uzbek agencies use analysis of curriculum documents with respect to policy statements, and pilot studies in some schools.

E-2.2 How are the results of the national curriculum evaluation used in your country? For example, to improve the quality of teaching and learning, to inform the development of new curriculum policy etc.

A. Results are now used to correct new curricula

E-3. Monitoring of Local Curriculum

E-3.1 In a district or school have the opportunity to design programmes that reflect the interests and needs of the students and their parents. If you have a locally controlled curriculum component, is there any monitoring of this? If so, how is this done?

A. Additional (school-based)curricula component of the secondary schools is defined and monitored by respective local department of the Ministry of People's Education along with Compulsory (State) component

E-4. Student Assessment for Curriculum Monitoring

Some countries are using national student achievement studies to evaluate the effect of the curriculum. For example, national assessment programmes, local assessment programmes, the observation of classes, performance testing etc.

E-4.1 What types of assessment are used to evaluate the impact of curriculum on student achievement? Indicate how often this occurs and at what grade level.

A. N/A

E-5.1 What major research has been conducted in your country over the last ten years to evaluate the impact of curriculum on the overall quality of education. List the research and the key significant findings.

A. In Uzbekistan studies of curricula are sponsored by the Educational Ministries and conducted by educational institutions. As result new strategies are developed, teachers guides, standards and etc. prepared. During the last 7 years several studies were conducted:

1. Development of Educational System in the New Social and Economic Conditions: Trainer Training Improvement. 1994-1996, Tashkent State Pedagogical Institute(), Research Institute of Professional Education(RIPE), Uzbekistan Research Institute of Pedagogical Sciences(URIPS).
2. Study and Development Of Pedagogical And Psychological Support To A New Informational Technology In Education. TSPI, 1994-1996.

As result were defined and evaluated parameters influencing to the educational system

3. Challenges of Educational System Development and training of Higher Qualified Specialists in the Market Economy. Tashkent State University(TSU), Tashkent State Technical University(TSTU), Tashkent State Economical University(TSEU), RIPE, URIPS, TSPI.

Principles of curricula design directed to bachelors and magister degree were developed. State standards and textbooks are issued.

4. Study of Socio-Economic and Demographic Factors influencing on Training of Highly Qualified Specialists. TSU, 1996

The factors influencing to parameters of training of highly qualified specialists were identified)

5. Challenges of Educational Standards Development. URIPS, RIPE. 1997
New educational standards are developed

6. Investigations and Development of Scientifically Approved Basis for improvement of Secondary Special and Higher Education: Based on Overseas Experience. Institute of Issues of the Higher and Secondary Special Education(IHSSE), 1996
Overseas experience was studied and state policy in education is defined.

Vietnam

Do Dinh Hoan

Section A : Background Information

A-1. General information

A-1.1 & A-1.2 Size of population/Age Groups

Total No. of Population	Annual population growth rate	Age Group Population			
			Male	Female	Total
73,962,400 (1995)	2,17%	0-4yrs	5,071,000	4,871,800	9,942,800
		5-9yrs	4,727,600	4,491,700	9,219,300
		10-14yrs	4,515,000	4,329,700	8,844,600
		15-19yrs	3,964,600	3,778,300	7,742,900

A-1.3.1 Major Ethnic groups in the country, as a percentage of total population.

Ethnic Group	%
KINH	86.83
TAY	1.85
THAI	1.62
HOA	1.40
KHOME	1.39
MUONG	1.42
NUNG	1.88
H'MONG	0.87
DAO	0.74
CHAM	
BANA	

A-1.3.2 Major Language groups in the country, as a percentage of total population.

Language Group	%
VIET	100.00
KHOME	
CHAM	

A-1.5 State the annual public expenditure on education :

total and as a percentage of GNP (in \$US).

Annual public expenditure on Education (US\$)	year	Expenditure on Education as a percentage of GNP	year
		2%	1997

A-1.6 Language

Official Language	Language of Instruction
Vietnamese	Vietnamese

A-2. The Educational system

A-2.1 Structure

Pre-school

Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-compulsory
		Male	Female	Total	Male	Female	Total	
3	3-5	2,926,200	2,783,500	5,709,700	%	%	34.57%	

Primary

Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-compulsory
		Male	Female	Total	Male	Female	Total	
5	6-10	4,690,700	4,463,300	9,154,100	%	%	97.05%	

Secondary

Level	Duration in years	Age range taught	Population			Percentage of relevant age group attending school			Compulsory or Non-compulsory
			Male	Female	Total	Male	Female	Total	
Lower Secondary	4	11-14	3,589,800	3,445,000	7,034,700	%	%	54.47%	
Upper Secondary	3	15-17	2,452,100	2,314,500	4,766,600	%	%	18.31%	

A-2.2 Class size and A-2.3 Teacher

Primary

Average Class size	No. of Classroom Teachers			Teacher-Student Ratio
	Male	Female	Total	
33	73,452	224,955	298,407	0.0292

Secondary

Level	Average Class Size	No. of Classroom Teachers			Teacher-Student Ratio
		Male	Female	Total	
Lower	42	47,463	106,953	154,416	0.0358
Upper	47	19,735	19,663	39,398	0.0386

A-2.4 Number of Schools

Level		Government	Private	Other (1)	Total
Primary		11,625		60	11,685
Lower Secondary		5,856		43	5,899
Upper Secondary	-General	588		56	644
	-Vocational (2)	253			253
	-Specialized				
	-Other				

(1) Include : Semi-public, Community sponsored.

(2) Include : Secondary vocational education and Secondary technical education.

A-2.5 Specific School Information :

	Primary	Lower Secondary	Upper Secondary
No. of school days/year for students	165	198	198
Division of school year	2 semester	2 semester	2 semester
No. of instruction days/week	5 days/week	6 days/week	6 days/week
Teachers' average no. of class contact hours/week	24	18	16
Time duration/teaching period (min.)	40	45	45

Section B : Curriculum policies

B-1. Background

B-1.1 Vietnam intends to complete basically the modernization and industrialization of the country in the year 2000. Vietnam is in the process of joining with the international community but still preserve and develop national traditions.

The socio-economic, political, cultural conditions of the country require the redesign of the objectives, contents and methods of education in order to meet the needs of training the human resource for the period of industrialization and modernization of the country.

B-1.2 The objectives of education (for formal education section) is : Forming and fostering the personality, quality and ability of a citizen; training working people who are allsidedly developed, faithful to the ideal of national independence and the building of a just and civilized society, who have morality and good health, knowledge, and a sense of being a member of community, who are dynamic and creative and know how to preserve and promote the cultural values of the nation, and receive the essence of the culture of mankind, who have the sense of discipline and organized, industrialized manner so as to meet the requirements of the building and defense of the fatherland.

B-1.3 the Draft of Education Act (planned to be submitted to the National Assembly in 12/1998) has articles related to the policies about curriculum as follows :

"Article 4 : Education principle": Educational activities should be implemented according to the principle : Education should be combined with labour and production and scientific research; theory should be linked with reality, learning should go together with practice, education in schools should be combined with education in the family and in the society.

"Article 5 : Contents and Methods of Education".

- 1- The content of education should be basic, practical, modernized all-sided, appropriate to the psychological and phisiological development of the learner, in order to meet the requirements training people - the human factor which serves the socio-economic development and scientific and technological advance.
- 2- The methods of education should help the learners train creative thinking and the will to progress, and develop the ability of self-learning and self-study of the learners.

"Article 6 : Any religious doctrine must not be propagated and any religious ceremony must not be conducted in the schools or other educational institutions belonging to the national education system".

"Article 7: Language to be used in the school.

1-Vietnamese is an official language to be used in the school.

2-Ethnic groups have the right to learn by and use their own language and script to create a basis for the preservation and development of the ethnic culture".

(Article 8 : about the national education system; Article 9 : about the diplomas in education system; Article 12 : about the socialization of education.")

B-2. Changing of Curriculum

B-2.1 During the past 5-10 years, we have not yet had conditions for changing the curriculum. Now, we are preparing for the changing of curriculum from the year after 2000.

B-2.2 Orientations for the development of curriculum for the period from after 2000 are as follows :

- 1) Focus on the basic, practical contents which can be applied in the actual life, update the contents according to the development of science, technology and a modern society.
- 2) Implement the renovation of teaching/learning methods to help learners have initiative and creativeness in learning, develop the ability of each individual student, especially the ability and method for self-learning.
- 3) Give due consideration to humanistic and international education. Preserve the national identity of Vietnam in the process of joining with the world community.

B-3. The process of developing curriculum

B-3.1 The system of curriculum development of Vietnam is in the central level, managed by MOET.

B-3.2 The agency mainly responsible for the research and development of curriculum in Vietnam is the Centre for development of Curriculum and Methods of Education under NIES. When compiling the curriculum the Minister of MOET decided to establish a Board for compiling Curriculum and assigned NIES to be the agency in charge. Experts of subjects of MOET, teachers of universities and excellent teachers of general education are selected to be members the Board for compiling curriculum.

In the process of developing the curriculum, experts, professionals, administrators, teachers and parents are invited to give comments or evaluate the curriculum.

For instance, the Committee for Developing of primary curriculum for the year 2000 has 75 members belonging to 21 agencies : research or steering primary education at central and local level, and universities.

After developing the framework of the curriculum 65 experts and all Services of Education and Training of provinces were invited to give their comments. When organizing the evaluation of this curriculum, MOET established Councils of Evaluation which consists of 98 members belonging to 28 educational agencies at central and local level and universities.

B-3.3 The development of curriculum of Vietnam is based on the 3 main factors :

- Vision of leaders of the country on economy and society within the coming period of 10-20 years.
- Achievements of education and experiences of curriculum development based on the characteristics of the country.
- Trends and experiences of developing curriculum of other countries.

B-3.4 The unity in curriculum of Vietnam is revealed in the unity in :

- Education objectives.
- Standard level of the curriculum.
- The way of organizing the assessment and evaluation of the learning outcomes of students.

Lower secondary education

Subject		Grade/year			
		6	7	8	9
Compulsory	1. -Vietnamese language - Literature	132	132	132	165
	2. Mathematics	132	132	132	231
	3. Citizenship Education	33	33	33	3
	4. History - Geography	99	99	99	9
	5. Natural Sciences	99	99	165	165
	6. Technology	66	66	66	6
	7. Music	33	33	33	16,5
	8. Art	33	33	33	16,5
	9. Foreign language	99	99	99	9
	10. Physical Education	66	66	66	6
	Total	792	792	858	858
Optional			Max 66	Max 66	Max 132

C-1.4 The integrated curriculum has been being an important matter in Vietnam since 10 years now. From 1987, the integration of the contents of history, geography, science into subjects of primary education was dealt with in Vietnam and the integrated curriculum of subject "Natural and Social studies" was experimented (1988-1994) up to now, subject "Natural and Social studies" is officially taught in primary education level. However, there are hindrances in developing integrated curriculum at primary level as well as at lower secondary schools.

It's partly due to the habit of teaching each subject separately and partly to the habit of training teachers of each subject at secondary level. What ever hindrances there may be, Vietnam will try to integrate the contents of different subjects in primary education (among the subjects : Natural and Social studies, Health education, Technology, Moral education) and in lower secondary school (among subjects : Physics, Chemistry and Biology).

C-1.5 Vietnam intends to deal with the teaching of different themes (mentioned in the below table) according to various ways (following the tradition of Vietnam or the integrated approach).

C-1.6 Curriculum coverage.

C-1.6.1 Curriculum of Vietnam is still heavy with academic knowledge and lack of practicality.

At present, there are too many contents for integration : population education, environment education, prevention and fight against drugs HIV/Aids, education for safe communication and transport, vocational orientation and work education...These are pressures that create the overloadness for curriculum.

C-1.6.2 Vietnam is redesigning the curricula for different levels of education. One of the issues to be paid attention to when redesigning the curriculum is to promote the renovation of teaching/learning method (to enable the teachers and students to have initiative, flexibility and activeness in teaching and learning) and to implement the integration of contents according to three different levels (to integrate into subjects to

reduce the number of subjects and increase the capacity of application in actual life, integrate the contents of international education into a number of subjects and create the coordination among the subjects to avoid unnecessary reiteration of contents).

Section D : Curriculum implementation

D-1. Teacher Professional Development

D-1.1 Pre-Service Teacher Development.

D-1.1.1 In Vietnam, there has been need for compulsory professional training for every teacher. However, due to lack of teachers, at times and, in some areas, we still have to accept the recruitment of personnel who are not yet professionally trained (this number of teachers will be sent for training courses, in service or regular training).

D-1.1.2 Vietnam has a national programme for training teachers of each level of education.

D-1.1.3 Summary of the formal (regular) programme for training of teachers (according to national standard) in Vietnam.

Level of Teacher	Title/Length of Program	Type of Institution	Minimum Entry requirement
Primary	Bachelor of Primary Education (2 years)	Teacher training college	Graduate from general education (12 years)
Lower secondary	Bachelor of Lower Secondary Education (3 years)	Teacher training college	Graduate from general education (12 years)
Upper secondary	Bachelor of Secondary Education (4 years)	National Teachers training university	Graduate from general education (12 years)

D-1.1.4 The common parts of formal teacher training program of Vietnam usually include :

- General parts : Philosophy, Education study, General psychology and age psychology (for each level of education).
- Basic parts : Basic science subjects related to the subjects to be taught at required level of education.
- Professional parts : Methodology of subject teaching pedagogical practice and internship.

D-1.1.5 In Vietnam, the curriculum of teacher training usually does not keep pace with the renovations of the general education curriculum (At present, the projects for training teachers is being developed to overcome this difficulty).

D-1.2 In-Service Teacher development programmes.

D-1.2.1 In-Service training is compulsory for every teachers. Each year, 45 days in summer vacation are usually used for training teachers.

D-1.2.2 In general, there is financial support by government for in-service training of teachers.

D-1.2.3 In Vietnam, there are different forms of training teachers such as in-service training, distance education, competition for selecting excellent teachers of each subject, professional activities of groups of subject in each grade level of each school or a group of schools.

D-1.2.4 Vietnam is now preparing for the qualifying of the body of teachers of each level of education (because formerly the training level of primary and lower secondary teachers was not equal). Therefore, the motive of not yet qualified teachers are to learn for qualifying. Besides, Vietnam encourages teachers to learn for upgrading the level (those who have high school certificate have to learn to get university degree and those who have university degree have to learn to get post-graduate degree etc.). When the teachers attain the qualified level or higher levels they usually have new level of salary.

D-1.2.5 To help teachers implement new curriculum effectively, Vietnam usually conduct training for teachers according to new curriculum and textbooks (study about content, method of teaching of each subject). These training courses are usually conducted in summer vacation.

D-2. Resource support.

D-2.1 In Vietnam, the government directly support the compiling and development of textbooks and teacher's book.

The process of writing textbook is often as follows :

- The National Institute for Educational Science, the Educational Publishing House, the Councils of Subjects of the Ministry of Education and Training jointly select and introduce a list of authors so that the Minister of MOET can approve and make a decision about this list.
 - The Educational Publishing House (an agency of MOET) organizes the writing of textbooks (give financial support, create favourable conditions for consulting professionals and experts).
 - The Council for textbook considering and approving of MOET will evaluate the draft books then submit to the Minister for approving.
- Each level of education usually have only one set of textbooks of MOET there's no option for textbooks.

D-2.2 Apart from textbooks, there are teacher's books, exercise books, reference books for teachers and students, video cassette tapes for the teaching/learning of each subject.

D-2.3 The state controls the development and writing of various kinds of books used in the schools. Private companies have right only for developing and printing reference books for teachers and students which are not compulsory.

D-2.4 Books printed will be sold for teachers and students (distributed free of charge only for those students who are in the especially difficult areas). At present, we are preparing for a program of lending textbooks to primary students in difficult areas

D-3. Community support.

The parents and local community usually give comments to the curriculum (with regards to the level of contents overload or not, the practicality of the contents, the way of organizing the implementation) where there are favourable conditions, the parents and local community can give financial or technical assistance eg : send professionals (artists, experts) to help schools implement the curriculum for optional subjects (apart from compulsory subjects...)

D-4. Classroom strategies.

D-4.1 and D-4.2 : In Vietnam we are now launching the renovation of the methods of teaching and learning in schools under the direction of activating the learning activities of students in order to enable students to discover and acquire knowledge themselves according to their individual ability under the organization and guidance of teachers).

This program is planned to be implemented in ten years continuously because the influence of traditional methods is still very strong.

D-5. School based Student Assessment.

D-5.1 In Vietnam, there usually has the linking between regular tests (in classes) and periodical tests (as set be regulation : at the end of each important chapter or item of textbook, at the end of terms, or of the school year...). Tests and examinations usually lay emphasis on the results of learning of students and have not yet given due consideration to the acquiring of other information (records, files, practise records in the laboratory). We realize that the way of evaluating and assessing the results of learning of students in Vietnam is absolute, it should be improved. (Because this way of assessing is not allsidedly done which easily cause a slanted, one sided attitude of teaching/learning for teachers and students).

D-5.2 The purpose of examining of levels of education is mainly to consider the condition for going up to a higher class (to pass examination), to inform the parents, and is not prepared for diagnosing the development of students individually.

D-5.3 The assessment of students is usually biased by the calculation of percentage, or grading (very good, good, fair, weak). This informing of the results of examination easily leads to the achievementism and formalism,...

We are now conducting a research on how to evaluate students in a more essential way and more closely related to the result of implementation of the curriculum at each level of education.

D-5.4 In Vietnam, we organize the examinations for choosing excellent students at each subject of each level of education, in each area and in the whole country.

The main purpose of these examinations is to discover the gifted students in order to properly train them. However, recently we have discovered some limits and weakness in the motives of parents, of each teacher and school which causes the psychology of "winning-losing" (achievementism) and the stress and overloadness for a number of students (we are now reconsidering the way of organizing examination for choosing excellent students).

D-6. Barriers and Constraints to Effective Curriculum Implementation.

D-6.1 The main difficulties/barriers that have been identified as constraints to effective curriculum implementation in Vietnam are as follows :

- The teachers qualifications are limited (Because of the poor knowledge of students is enrolment, and of the government policies toward teachers, together with their low incomes in comparison with those in other industries) and the inadequate teachers are prolonged (especially number of teachers needed for the areas with difficulties).
Example : In 1997-1998 schol year, we are short of 50,000 primary school teachers, 38,000 lower secondary school teachers, and 15,000 upper secondary school teachers.
- The educational environment is full of difficulties : the shortage of classrooms, school taken in 2 shifts, 3 shifts (2 or 3 classes share one classroom only), the overlarge class sizes (On average, the class size is 50-60 students in the town, and 40-50 students in the country...), the inadequate support instructional materials and poor teaching aids (we just have textbooks, teacher's book, blackboards, chalk and some simple self-made or very cheap teaching aids; even in some areas only 50% of students are provided with textbooks...)
- The main teaching methodology applied in schools is the traditional teaching method which has not encouraged teacher' and students' activeness and creativeness.
- In some ethnic group areas, students know Vietnamese a little (This is a common language of instruction for the whole country). As a result, the students have met a lot of difficulties in their studies. (The government encourages both Vietnamese and ethnic group language in the teaching and learning, but there are inadequate teachers to meet the demand of instruction in 2 languages).

- In some areas where the transport has not developed, students have difficulty in going to school, particularly in rainy season...(Although there are available planet schools for students, they have to go to Centre schools when moving to grade 4, grade 5 or lower secondary classes) etc...

Section E. Curriculum Monitoring and Evaluation

E-1. Monitoring and Evaluation.

E-1.1 The processes used to monitor and evaluate curriculum are as follow:

- Conducting a basic survey about the curriculum evaluation taken by the Ministry of Education and Training (MOET) (Forming the survey project based on an appropriate model, For instance, selecting 10 provinces out of 56 provinces representing various developed regions).
- Inspecting education at all levels.
- Reviewing textbooks (In Vietnam there is only one particular selection of textbooks compiled and approved by MOET etc...)
- Examining the quality of teaching and learning periodically.
- Organizing surveys for comments and suggestions to different social communities.
- Setting up scientific subject area councils for curriculum evaluation. (In 1995, 9 subject area scientific councils were set up for 9 primary-curriculum evaluation) etc...

E-2. Curriculum Evaluation

E-2.1 The main mechanisms for curriculum evaluation are using the system of scientific subject area councils of MOET (consisting of educational scientists, educators, excellent teachers).

- For new curricula, they should be experimented in schools, experience should be drawn after teaching experiment, and a survey is held widely for teachers' and parents' comments about the curricula. These should be done before the new curricula are evaluated and approved by scientific subject area councils.

E-2.2 After the curriculum evaluation, the curricula should be submitted to the minister of MOET for permission to be implemented or adjusted/improved or disapproved so that new curricula should be developed instead.

E-3. Monitoring of Local Curriculum

In Vietnam, 15% of teaching time program is devoted to a locally controlled curriculum component (teaching local geography, history, traditional vocations (trades), ethnic group languages, etc.). However, there has not been any monitoring of this local curriculum.

E-4. Student Assessment for Curriculum Monitoring

E-4.1 The following are forms of evaluating the impact of curriculum on student achievement :

- Evaluation taken by educational managers at all levels by observing classes, inspecting registration books and teaching materials of teachers.

- Evaluation through performance testing-periodical tests (4 times per school-year)
- Evaluation through teaching competitions held for excellent teachers (to know the best results which can be achieved in curriculum implementation), through graduation examinations or sudden tests of learning quality etc.

E-5. Research and Curriculum Development.

Over the last 10 years, we have been conducting some educational research on curriculum renovation, such as :

- Evaluating the primary curriculum implementation, the lower secondary curriculum, the upper secondary curriculum within 1981-1991 period.
- Developing primary curriculum, secondary curriculum used after the year 2000.
- Building up the minimum learning levels (which are regarded as the minimum standards) first for all compulsory educational universalization levels (primary compulsory educational universalization from 1991 to 2000, and lower compulsory secondary educational universalization from 2000 to 2010).
- Improving teaching methods and step by step improving the processes and forms of evaluating, assessing student achievement.